United States Department of the Interior

Bureau of Land Management

Environmental Assessment

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November 2014 Oil and Gas Lease Sale

Location: Price Field Office
Carbon and Emery Counties, Utah

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CHAPTER ONE – PURPOSE AND NEED

1.1 Introduction

The Bureau of Land Management (BLM), Price Field Office (PFO) prepared this environmental assessment (EA) to analyze the environmental consequences of the sale of 29 parcels, approximately 33,908 acres, during the November 2014 competitive oil and gas lease sale. The EA is an analysis of potential impacts that could result from the implementation of a proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any significant impacts could result from the analyzed actions. *Significance* is defined by NEPA and is found in regulation 40 Code of Federal Regulations (CFR) 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). If the decision maker determines that this project has significant impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A DR, including a FONSI statement, for this EA would document the reasons why implementation of the selected alternative would not result in significant environmental impacts (effects) beyond those already addressed in the PFO Record of Decision and Approved Resource Management Plan (PFO ROD/RMP).

1.2 Background

On February 6, 2014, the BLM PFO received the preliminary oil and gas lease nominations from the BLM Utah State Office. These lands included 60 parcels (See Appendix B, Maps 1-3, and Appendix A, Parcel List and Appendix D, Deferred Lands List). There were 17 parcels or portions of parcels removed from consideration because of coal resource conflicts and 34 parcels or portions of parcels removed due to sage-grouse conflicts (See Appendix B, Map 3, and Appendix D, Deferred Lands List). Some of the parcels had both coal and sage-grouse conflicts. All the mineral rights and much of the surface for the 29 parcels proposed for offering for lease (Appendix B, Maps 1- 2, and Appendix A) are managed and administered by the BLM PFO. See Appendix F for photographs from the onsite inspections of the parcels.

If a parcel is not leased by competitive bidding, it may be leased by non-competitive sale for the two years following the auction date. A lease may be held for ten years (43 CFR 3120.2-1), after which the lease would expire unless oil or gas is produced in paying quantities. A producing lease would be held indefinitely by paying production of oil or gas. These lands would be offered subject to applicable laws and standard lease terms. Standard lease terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, June 1988, or later edition). Once the lease has been issued, the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands. Operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment, and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Compliance with valid, nondiscretionary statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are part of all of the alternatives. In addition, lease operations would be subject to stipulations for surface disturbing activities prescribed in the 2008 PFO Record of Decision and Approved Resource Management Plan (2008 PFO ROD/RMP).

1.3 Purpose and Need of the Proposed Action

The purpose of the proposed action is to provide parcels for inclusion in a competitive oil and gas lease sale to be held by the Utah BLM State Office in November 2014. The need for continued leasing is necessary to maintain options for

production of oil and gas as companies seek new areas for production, or attempt to locate and develop previously unidentified, inaccessible, or uneconomical reserves.

The sale of oil and gas leases is needed to meet the growing energy needs of the United States public. The BLM is required by law to review areas that have been nominated and there has been steady interest in oil and gas exploration in the PFO area. Utah is a major source of natural gas for heating and electrical energy production in the lower 48 states. Continued sale and issuance of lease parcels maintains options for production as oil and gas companies seek new areas for production or attempt to develop previously inaccessible or uneconomical reserves.

Oil and gas leasing is a principal use of the public lands as identified in Section 102(a)(12), 103(1) of the Federal Land Policy and Management Act of 1976 (FLPMA), and it is conducted to meet requirements of the Mineral Leasing Act of 1920, as amended, the Mining and Minerals Policy Act of 1970, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Reform Act). Leases would be issued pursuant to 43 CFR subpart 3100.

1.4 Conformance with BLM Land Use Plan

Within the PFO ROD/RMP (as maintained), Appendices R-3 (Stipulations for Surface Disturbing Activities), R-5 (Best Management Practices for Raptors and their Associated Habitats), and R-14 (Fluid Mineral Development Best Management Typical Practices) contain pertinent stipulations, lease notices and committed measures. The proposed action is in conformance with the applicable Land Use Plan (LUP) because it is specifically provided for in the following decisions:

MLE-5 (page 125 PFO ROD/RMP)

The BLM has identified LUP leasing allocations for all lands within the Price Field Office. In addition, the Proposed RMP describes specific lease stipulations (Appendix R-3) that apply to a variety of different resources including raptors, Greater sage-grouse, and big game habitat, as well as program-related Best Management Practices (Appendix R-14) that may be applied on a case-by-case basis, site-specific basis to prevent, minimize, or mitigate resource impacts (Map R-8).

MLE-6 (page 125 PFO ROD/RMP)

Review all lease parcels prior to lease sale. If the Price Field Office determines that new resource data information or circumstances relevant to the decision is available at the time of the lease review that warrants changing a leasing allocation or specific lease stipulation, the Price Field Office will make appropriate changes through the plan maintenance or amendment process. The Price Field Office may also apply appropriate conditions of approval at the permitting stage to ensure conformance with the LUP and all applicable law, regulation, and policies. (Department of the Interior, 2008).

MLE-9 (page 126 PFO ROD/RMP)

Oil and gas leasing management will be conducted as shown on Map R-25a.

- Areas open to leasing subject to the standard terms and conditions of the lease form (1,161,000 acres)
- Areas open to leasing subject to moderate constraints (timing limitations; CSU, and lease notices) (467,000 acres)
- Areas open to leasing subject to major constraints (NSO) (282,000 acres)
- Areas unavailable to leasing (569,000 acres)

The combination of all restrictions on oil and gas development is shown on Map R-26a.

The proposed action is also consistent with PFO ROD/RMP decisions and objectives as they relate to the management of the following resources (including but not limited to): air quality, BLM natural areas, cultural resources, recreation,

riparian, soils, water, vegetation, fish and wildlife, and Areas of Critical Environmental Concern (ACEC). Additional RMP decisions are specified in Chapter 3 or the ID team checklist. In addition, site visits were conducted on the proposed parcels to verify consistency with the PFO ROD/RMP.

1.5 Relationship to Statutes, Regulations, or Other Plans

The proposed action is consistent with federal laws and regulations, Executive Orders, and Department of the Interior and BLM policies and is in compliance, to the maximum extent possible, with state laws and local and county ordinances and plans, including the following:

- Federal Land Policy and Management Act (1976) as amended and associated regulations found at 43 CFR 1600
- Taylor Grazing Act (1934) as amended
- National Historic Preservation Act (1966), as amended and associated regulations at 36 CFR Part 800
- Bald and Golden Eagle Protection Act (1962)
- Endangered Species Act (1973), as amended
- Migratory Bird Treaty Act (1918)
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds
- MOU between the USDI BLM and USFWS to Promote the Conservation and Management of Migratory Birds (4/2010)
- Mineral Leasing Act (1920), as amended and supplemented and associated regulations found at 43 CFR 3100
- Utah Standards and Guidelines for Rangeland Health (1997)
- BLM Utah Riparian Management Policy (2005)
- BLM Manual 6840 - Special Status Species Management
- Utah Supplemental Planning Guidance: Raptor Best Management Practices (BLM UTSO IM 2006-096)
- Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (BLM WO IM-2010-117)
- Oil and Gas Leasing Program NEPA Procedures Pursuant to Leasing Reform (BLM UT IM 2014-006)
- Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (U.S. Department of Interior, Bureau of Land Management, June 2007)
- Price Field Office Record of Decision and Approved Resource Management Plan (2008)
- Price Field Office Final Environmental Impact Statement and Final Resource Management Plan (2008)

- State Protocol Agreement Between the Utah State Director of the Bureau of Land Management and the Utah State Historic Preservation Officer Regarding the Manner in which the Bureau of Land Management Will Meet its Responsibilities Under the National Historic Preservation Act and the National Programmatic Agreement Among the BLM, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers (2001)
- MOU Among the USDA, USDI and EPA Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process (2011)
- Determining Conformity of Federal Actions to State or Federal Implementation Plans (40 CFR Part 93 Subpart E)
- Land Management Plan for Gordon Creek Wildlife Management Area
- Greater Sage-Grouse Interim Management Policies and Procedures (WO IM 2012-043)
- BLM Manual 6310 - Conducting Wilderness Characteristics Inventory of BLM Lands
- BLM Manual 6320 - Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process
- BLM Manual 6250 – National Scenic and Historic Trail Administration
- The National Trails System, Memorandum of Understanding, 06-SU-11132424-196, Among The United States Department of the Interior, Bureau of Land Management, National Park Service, United States Fish and Wildlife Service; United States Department of Agriculture Forest Service; United States Department of the Army, Corps of Engineers; and The United States Department of Transportation Federal Highway Administration (2006)
- National Park Service, National Historic Trail Feasibility Study and Environmental Assessment, Old Spanish Trail (2001)
- National Scenic and Historic Trails Strategy and Work Plan, BLM-WO-GI-06-020-6250
- Green River District Reclamation Guidelines (28 March 2011)
- Price Field Office Surface Disturbance Weed Policy (PFO ROD/RMP Vegetation Decision 10)
- BLM Price Field Office Visual Resource Management Inventory (2011)

These documents and their associated analysis are hereby incorporated by reference, based on their use and consideration by various authors of this document. The attached Interdisciplinary Team Checklist, Appendix C, was also developed after consideration of these documents and their contents. Each of these documents is available for review upon request from the PFO. Utah's Standards for Rangeland Health address upland soils, riparian/wetlands, desired and native species and water quality. These resources are either analyzed later in this document or, if not impacted, are also listed in Appendix C.

1.6 Identification of Issues

The proposed action was reviewed by an Interdisciplinary Team (IDT) composed of resource specialists from the PFO. This team identified resources in the parcel areas which might be affected and considered potential impacts using current

office records, geographic information system (GIS) data, and site visits. The results of the IDT review, including a list of all resources/issues that are analyzed in detail within this EA are contained in the Interdisciplinary Team Checklist, which is included as Appendix C.

Letters were sent to the private landowners on May 2, 2014 to solicit their comments and concerns about the pending lease sale.

On February 14, 2014, notice of the lease sale, parcel locations and an invitation to attend the parcel site visits was provided to the National Park Service, the United States Fish and Wildlife Service, the United States Forest Service and the State of Utah's Public Lands Policy Coordination Office, Division of Wildlife Resources (DWR) and the School and Institutional Trust Lands Administration. In addition, geographic information system (GIS) data depicting the proposed lease parcels was transmitted to DWR and the National Park Service by electronic mail on January 31 and February 27, 2014, respectively. The IDT conducted site visits to the proposed parcels on April 8 and April 10, 2014, to validate existing data and gather new information in order to make an informed leasing recommendation. The DWR participated in the parcel visits on April 8th and 10th. None of the other outside agencies contacted the PFO expressing interest in attending the site visits.

The deadline for the public to nominate areas or otherwise submit Expressions of Interest (EOI) for the November 18, 2014, competitive oil and gas lease sale was January 6, 2014. In accordance with BLM WO IM 2010-117 (Leasing Reform) and BLM UT IM 2014-006, public notification of the November 2014 lease sale will be initiated by entering the project information on the Environmental Notification Bulletin Board (ENBB)[1], a BLM environmental information internet site, on June 13, 2014. Additional information for the public is maintained on the Utah BLM Oil and Gas Leasing Webpage.[2] Additional information on public participation is available in Section 5.3.

Issues brought forward for more detailed analysis are:

- Air Quality
- Hydrology – Water Quality
- Wetlands – Riparian Zones
- Soils including Prime or Unique Farmlands
- Threatened, Endangered, Candidate or Sensitive Plants
- Non-WSA Lands with Wilderness Characteristics

1.7 Summary

This chapter has presented the purpose and need of the proposed project, as well as resources that could be affected by the implementation of the proposed project. In order to meet the purpose and need of the proposed project in a way that resolves the issues, the BLM has considered and/or developed a range of action alternatives. These alternatives are presented in Chapter 2. The potential environmental impacts or consequences resulting from the implementation of each alternative considered in detail are analyzed in Chapter 4 for each of the identified issues.

[1] Accessed online at: https://www.blm.gov/ut/enbb/index.php

[2] Accessed online at: http://www.blm.gov/ut/st/en/prog/energy/oil_and_gas/oil_and_gas_lease.html

CHAPTER 2 – DESCRIPTION OF ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1 Introduction

This environmental assessment analyzes the Proposed Action and No Action alternatives. The No Action alternative is analyzed to provide a baseline for comparison of the impacts of the Proposed Action.

2.2 Alternative A – Proposed Action

Twenty-nine nominated parcels, containing approximately 33,908 acres within the jurisdiction of the PFO have been proposed for sale at the November 18, 2014, Utah BLM Competitive Oil and Gas Lease Sale. The parcels would be offered with resource protection measures consistent with the 2008 PFO ROD/RMP. Legal descriptions of each parcel can be found in Appendix A, and maps of the parcels can be found in Appendix B, Maps 1 – 2.

2.3 Alternative B – No Action

The No Action alternative would not offer any of the nominated parcels for sale.

2.4 Alternatives Considered but Not Carried Forward

Leasing All Parcels Alternative

A total of 60 parcels were included on the November 2014 oil and gas lease preliminary list of parcels submitted to the PFO for leasing analysis. An alternative was considered that included leasing all 60 parcels. Conflicts with coal resources occur within 17 parcels or portions of parcels and these parcels or portions of parcels will not be considered for leasing. These parcels were deferred due to their proximity to active coal mines and/or because they have the potential to conflict with future coal interests reasonably foreseen in the next ten years.

Greater Sage-grouse (GSG) conflicts occur within 30 parcels or portions of parcels. A leasing decision for these parcels has been deferred pending the completion of the Record of Decision for the BLM Utah's GSG Land Use Plan Amendment and Environmental Impact Statement project (GSG ROD/LUPA/EIS). The deferred lands within these parcels have either been mapped as occupied habitat for GSG or are surrounded by lands mapped as occupied habitat for GSG. As such, a leasing decision has been deferred until such time when the management decisions and analysis contained within the GSG ROD/LUPA/EIS may be considered in evaluating the potential direct, indirect and cumulative impacts to GSG that may result from leasing the deferred lands.

A leasing decision for Parcel UT1114-036 has been deferred in order to ensure that any such decision is based upon an appropriate analysis and consideration of the potential direct, indirect and cumulative impacts of leasing the parcel. This parcel is located in an area where the surrounding federal lands are essentially undeveloped and several non-mineral resource values and uses exist. As such, it was determined that it would be appropriate to defer the parcel from the November 2014 lease sale in order to allow sufficient time for further consideration of the potential impacts that leasing may have on other resource values and uses for the lands within and surrounding the parcel.

The parcels or portions of parcels which were deferred are identified in Appendix B-Map 3 and in Appendix D deferred lands list.

CHAPTER 3 – AFFECTED ENVIRONMENT

3.1 Introduction

This chapter describes the affected environment (i.e., the physical, biological, social, and economic values and resources). Only those aspects of the affected environment that are potentially impacted (PI) in the Interdisciplinary Team Checklist are described in detail.

Issues were eliminated from analysis because they were either not applicable to the lands considered in the proposed action or the reviewing specialists did not consider the proposed action to represent a potential impact to these issues, under applicable leasing protective measures provided through the 2008 PFO ROD/RMP. Rationale as to why these resources or issues were not carried forward for analysis is also contained in the Interdisciplinary Team Checklist (Appendix C).

3.2 General Setting

The 29 parcels in the proposed action are located in Carbon and Emery Counties, Utah. Appendix A contains legal descriptions of these parcels. Appendix B, Maps 1- 2 show the locations of the parcels. The project area is situated in the Colorado Plateau physiographic province.

The parcels are located in the northern region of the PFO area which is made up of the San Rafael Swell, Book Cliffs - Roan Plateau, and Mancos Shale Lowland sections of the Colorado Plateau (See Appendix B Map 5). These areas are south of the Uinta Basin where Upper Cretaceous and Lower Tertiary rocks rise upward from the north along the dip slopes of the basin to reach elevations of 8,000 to 10,000 feet. On the south end of the Uinta Basin the rocks are abruptly truncated in great erosional cliffs that descend to elevations around 5,000 feet in the Mancos Lowlands. The Book Cliffs are formed by Upper Cretaceous sandstones and shaly siltstones of the Mesaverde Group, including the Blackhawk Formation, Castlegate Sandstone, and the Price River Formation. To the northeast of the Book Cliffs, the Roan Cliffs are formed by the reddish-brown mudstone and sandstone beds of the Colton Formation (Paleocene-Eocene). Further to the northeast in Carbon County are other erosional rises, including the West Tavaputs Plateau and the Bad Land Cliffs that expose the Eocene Green River Formation. A dominant physical feature within the PFO is the San Rafael Swell occupying the majority of Emery County. This feature is a large northeast trending up warp approximately 75 miles long and 30 miles wide that is part of a much larger, double-plunging anticline structure. This large, regional fold exposes rocks of Pennsylvanian through Cretaceous age. Resistant beds of sandstone are exposed as hogbacks on the steeply upturned east flank of the anticline and are referred to locally as “reefs.” Three perennial rivers (the Muddy, San Rafael, and Price) flow eastward into the Green and Colorado River system. The majority of the parcels under analysis are located in the Book Cliffs-Roan Plateau and Mancos Shale Lowland.

Bordering the San Rafael Swell on the north, west, and northeast sides is the Mancos Shale Lowland section, including Castle Valley and Clark Valley. The Upper Cretaceous Mancos Shale is an easily eroded rock formation and is exposed at the surface across much of this section, resulting in relatively low-lying areas. The landscape of the Mancos Lowlands is characterized by sloping, gravel-covered pediments, rugged badlands, and flat bottom alluvial valleys (Stokes 1986). Immediately southeast of the San Rafael Swell lies the Green River Desert Section of the Colorado Plateau characterized by Quaternary eolian deposits with scattered mesas and buttes of Jurassic bedrock exposed at the surface.

The PFO is located in central Utah, east of the Wasatch Mountains. The proximity of the Wasatch Mountains exerts a strong influence on the climatology and meteorology of the area. Areas east of the Wasatch Range are characterized by hot, dry summers and cold, dry winters. Air movement at this latitude is predominately from the west and northwest year-round.

The lower elevations receive less than 10 inches of precipitation annually. Higher elevations of the PFO receive more than 14 inches of precipitation annually. Snow amounts also are low east of the Wasatch Mountains. Average maximum temperatures in the area range from 97°F in July to 33°F in January. Average minimum temperatures range from 7°F in January to 58°F in July (BLM 1997, BLM 1999b).

3.3 Resource Issues Brought Forward for Analysis

The Interdisciplinary Team Checklist, Appendix C, indicates which resources of concern are either not present in the project area or would not be impacted to a degree that requires detailed analysis. Resources which could be impacted to a level requiring further analysis are described in this Chapter and impacts to these resources are analyzed in Chapter 4.

3.3.1 Air Quality

The Project Area is located adjacent to the Uinta Basin, a semiarid, mid-continental climate regime typified by dry, windy conditions and limited precipitation. The San Rafael Swell, located just south of the Uinta Basin, is subject to abundant sunshine and rapid nighttime cooling. Wide seasonal temperature variations typical of a mid-continental climate regime are also common. Existing point and area sources of air pollution in and around the Uinta Basin include the following:

- Exhaust emissions (primarily CO, NOx, PM2.5, and HAPs) from existing natural gas fired compressor engines used in transportation of natural gas in pipelines;
- Natural gas dehydrator still-vent emissions of CO, NOx, PM2.5, and HAPs;
- Gasoline and diesel-fueled vehicle tailpipe emissions of VOCs, NOx, CO, SO2, PM10, and PM2.5;
- Oxides of sulfur (SOx), NOx, and fugitive dust emissions from coal-fired power plants and coal mining and processing;
- Fugitive dust (in the form of PM10 and PM2.5) from vehicle traffic on unpaved roads, wind erosion in areas of soil disturbance, and road sanding during winter months; and
- Long-range transport of pollutants from distant sources.

The San Rafael Swell is designated as unclassified under the Clean Air Act, meaning that adequate air monitoring is not available to make an attainment determination. NAAQS are standards that have been set for the purpose of protecting human health and welfare with an adequate margin of safety. Pollutants for which standards have been set include ground level ozone (O_3) sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM_{10}) or 2.5 microns in diameter ($PM_{2.5}$). Airborne particulate matter (PM) consists of tiny coarse-mode (PM_{10}) or fine-mode ($PM_{2.5}$) particles or aerosols combined with dust, dirt, smoke, and liquid droplets. $PM_{2.5}$ is derived primarily from the incomplete combustion of fuel sources and secondarily formed aerosols, whereas PM_{10} is primarily from crushing, grinding, or abrasion of surfaces.

Ground-level ozone (O_3) is a secondary pollutant that is formed by a chemical reaction between NO_X and VOCs in the presence of sunlight. Precursor sources of ozone include motor vehicle exhaust and industrial emissions, gasoline vapors, some tree species emissions, wood burning, and chemical solvents. Ozone is generally known as a summertime air pollutant. Ozone is a regional air quality issue because, along with its precursors, it transports hundreds of miles from its origins. Maximum ozone levels may occur at locations many miles downwind from the sources.

Active year-round ozone monitoring in the Uinta Basin began in the summer of 2009 south of Vernal at two monitoring sites: Red Wash and Ouray. Since that time numerous other monitoring stations have been established and/or operated in the Basin. These monitoring sites have recorded numerous exceedances of the 8-hour ozone standard during the winter

months (January through March). High concentrations of ozone are being formed under an "inversion" process whereby stagnate air conditions with very low mixing heights form under clear skies with snow-covered ground and abundant sunlight that, combined with area precursor emissions (NO_x and VOCs), create intense episodes of ozone. Based on the monitoring to date, these episodes occur only during the winter months (January through March). This phenomenon has also been observed in similar types of locations in Wyoming and has contributed to a proposed nonattainment designation for Sublette County.

Winter ozone formation is a newly recognized issue, and the methods of analyzing and managing this problem are still in development. Existing photochemical models are currently unable to replicate winter ozone formation satisfactorily, in part due to the very low mixing heights associated with the unique meteorology of these ambient conditions. Based on the emission inventories developed for Uintah County, the most likely dominant source of ozone precursors in the Uinta Basin are oil and gas operations in the vicinity of the monitors. While ozone precursors can be transported large distances, the meteorological condition under which this inversion ozone formation is occurring tends to preclude transport. At the current time ozone exceedances in this area seem to be confined to the winter months during periods of intense surface inversions and low mixing heights. Work still remains to be done to definitively identify the sources of ozone precursors contributing to the observed ozone concentrations. In particular, speciation of gaseous air samples collected during periods of high ozone is needed to determine which VOC s are present and what their likely sources are.

The complete EPA Ouray and Redwash monitoring data can be found at: http://www.epa.gov/airexplorer/index.htm

The complete NPS Dinosaur National Monument monitoring data can be found at:
http://www.nature.nps.gov/air/Monitoring/MonHist/index.cfm

The UDAQ conducted limited monitoring of $PM_{2.5}$ in Vernal, Utah, in December 2006. During the 2006-2007 winter seasons, $PM_{2.5}$ levels were measured at the Vernal monitoring station that were higher than the $PM_{2.5}$ health standard that became effective in December 2006. The $PM_{2.5}$ levels recorded in Vernal were similar to other areas in northern Utah that experience wintertime inversions. The sources of elevated $PM_{2.5}$ concentrations during winter inversions in Vernal, Utah, haven't been identified as of yet. The most likely causes of elevated $PM_{2.5}$ at the Vernal monitoring station are probably those common to other areas of the western U.S. (combustion and dust) plus nitrates and organics from oil and gas activities in the Basin. This conclusion is supported by results of recent studies ongoing in the Basin.

It should be noted that the San Rafael Swell will have different emissions and meteorological conditions than the Uinta Basin. We expect the small additions from oil and gas parcel leasing to have a negligible impact. Air Quality monitoring in Price, Utah, does not show exceedances like that of the Uinta Basin.

Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental impacts. The EPA has classified 187 air pollutants as HAPs. Examples of listed HAPs associated with the oil and gas industry include formaldehyde, benzene, toluene, ethylbenzene, isomers of xylene (BTEX) compounds, and normal-hexane (n-hexane). There are no applicable Federal or State of Utah ambient air quality standards for assessing potential HAP impacts to human health.

Air quality meets the NAAQS (State Department of Environmental Quality and the Division of Air Quality Standards (Utah Division of Air Quality 2011 Annual Report).[3] An "unclassified" designation indicates that sufficient air monitoring is not available to make a determination as to attainment status. For regulatory purposes an unclassified county is

[3] Accessed online on 6/6/13 from http://www.airquality.utah.gov/Public-Interest/annual-report/.pdf/2012Annual%20Report.pdf

considered the same as attainment. The UDAQ 2012 annual report includes a 2011 triennial emissions inventory (EI) by county (see table below).

Emissions Inventory (2011) (Measured in Tons per Year (TPY).

Pollutant	Carbon	Emery
PM_{10}	1010.979	1792.626
$PM_{2.5}$	618.487	678.873
SOx	8370.740	7243.353
NOx	6132.159	21511.124
VOC	16847.970	32123.164
CO	8293.984	21686.845

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOC) are also considered in this EA as they, along with NOx, are precursors to the formation of ozone and are listed by UDAQ as a pollutant that, if the threshold is exceeded, would require an approval order.

This EA addresses mobile off road engine exhaust emissions from drilling activities, venting and flaring emissions from completion and testing activities, emissions from ongoing production activities, and fugitive dust emissions, specifically emissions of total particulate matter of less than 10 micrometers (PM10), from heavy construction operations. PM10 emissions are converted from total suspended particulates by applying a conversion factor of 25%. PM2.5 is not specifically addressed as it is included as a component of PM10. PM2.5 is converted from PM10 by applying a conversion factor of 15%. This EA does not consider mobile on road emissions as they are dispersed, sporadic, temporary, and not likely to cause or contribute to an exceedance of the NAAQS.

Greenhouse gases keep the planet's surface warmer than it otherwise would be. But, as the concentrations of these gases continue to increase in the atmosphere, the Earth's temperature is climbing above past levels. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4º F in the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 1998. However, according to the British Meteorological Office's Hadley Centre (BMO 2009), the United Kingdom's foremost climate change research centre, the mean global temperature has been relatively constant for the past nine years after the warming trend from 1950 through 2000. So while most scientists believe that Earth will continue to warm in the future, this warming has not occurred for the past ten years. Therefore, quantified or globally accepted predictions on the ultimate outcome of global warming are still unknown. The warmest year on record was 1998, a year associated with the most intense El Nino global phenomena ever experienced. Most of the warming from 1950 through 2000 is speculated to be the result of human activities. Other aspects of the climate, such as rainfall patterns, snow and ice cover, and sea level, are also changing.

3.3.2 Hydrology

Hydrologic Conditions

The proposed lease areas have a varied landscape described as extreme slopes over 70% to flat valley floor, with many of the upper slopes being high soil production due to the character of the parent material. Soil type is a product of topography, climate, vegetation, and parent material. These factors vary widely in the parcels being considered. The topography varies from steep hill slopes of over 70% to flat valley floor. Elevations of over 7000 feet above mean sea level (MSL) are where the steeper slopes are found, to the lower elevations near 4400 feet above MSL where the valley floor is dominated by flatter lands that are commonly crossed by gullies. The valley floor is commonly interrupted by buttes.

The climate is a dry almost sub-desert region. Rainfall varies throughout with annual precipitation of over 15 inches on the higher slopes in the northern parcels to less than 6 inches on the southern valley floors. Temperatures range from less than -20 degrees F. on the higher locations in the winter to over 100 degrees on the valley floor during the summer. Detailed climate and meteorological data can be found in the Final Air Quality Baseline and Analysis Report – Price Resource Management Plan (Booz Allen 2008).

Dominant vegetation types are pinyon-juniper on the upper slopes and high flats to salt desert shrub on the valley floor. The vegetation type is driven by climate, elevation, and soil type.

The parent material varies widely due to the geologic nature of the area's history. The exposed formations contribute a wide variety of texture and chemical characteristic soil types. These formations are described as modern and quaternary unconsolidated soils in the higher elevations, moving down to older sandstones, mud stones and down to the mancos shale, a clay/silt saline formation created from salt ocean bottom, at the valley floor. There are some older exposed sandstones and shales below the mancos. Combined with the varied elevations, many plant communities and the multiple climes, the area is rich in soil combinations. As a result, there are stable soils with high soil production, desert soils that are highly erodible, and various others that are classified in between. The result is a complex landscape filled with a myriad of geomorphic experiments.

Water from winter snows and late summer monsoons create runoff patterns that cut small mountain canyons off the mountains and deep desert chasms and majestic canyons cutting through the flat lands pushed up by the San Rafael Swell. Rills and gullies are common. The desert environment typically transports storm and seasonal runoff through rills and gullies because there is little vegetation to retard overland flows due to the saline and sodic soils on the flat lands.

Flood Hazards

The watersheds upstream of existing towns in the PFO are in mixed ownership of federal, state, and private land. Some areas of public land are on steep terrain with clayey, stony, and shallow soils. These areas have high runoff potential, and surface-disturbing activities can change the duration and peaks of runoff events reaching the streams. Debris jams and channel bank erosion on these lands can cause flooding and sediment damage to private agricultural land, irrigation works, buildings, roads, and other structures. The structures most often affected by peak runoff events on public lands are water and erosion control structures, stock ponds, and roads, which often follow canyon floors and cross-stream channels.

Surface Water

The parcels are located within the Price River major watershed, HUC basin 14060007. Numerous smaller perennial, intermittent, or ephemeral stream channels, with an array of flow regimes and uses, are located throughout the watershed, with smaller segments located near springs or headwaters.

Groundwater

The PFO is nearly all underlain by a series of consolidated sedimentary formations. All the geologic units contain some water, but only five are considered to be major aquifers: Entrada, Navajo, Wingate Sandstones, Coconino Sandstone (including its equivalents in the Cutler Formation), and rocks of the Mississippian age. These sources are mostly used for stock watering. Several other formations are at least locally important, including the Carmel Formation, the Salt Wash Sandstone member of the Morrison Formation, the Curtis Formation, and the Moss Back Member of the Chinle Formation. The formations are encountered at elevations ranging from surface outcrops to more than 2,000 feet below the surface. Little groundwater is used for culinary water.

Groundwater supplies are controlled more by recharge conditions than by use depletions. Precipitation is the ultimate recharge source. Areas with exposed permeable formations and regional fracture systems, where average annual

precipitation is more than 12 inches, usually are recharge areas in the project area. Groundwater moves from these areas of recharge, discharges to stream valleys flowing from the Wasatch Plateau and Bookcliffs, and recharges the major aquifers underlying the PFO. Price City, Helper, Wellington, and East Carbon all use some groundwater for small portions of their municipal water supplies. The BLM also manages mainly stock wells. However, there are numerous private domestic wells within the region that likely contain usable quality water.

Groundwater disposal is a large aspect of coal bed natural gas development. Saline water pumped from coal bed methane wells throughout the PFO is re-injected because of its high total dissolved solids (TDS).

3.3.3 Water Quality

Salt and sediment yield is of major concern in the Colorado River Basin, and erosion on public lands is one source of sediment and associated salts in the PFO. Some of this is natural or resulting from relatively stable conditions in a semiarid or arid climate regime with periodic, high-intensity storms. In the upper Colorado River Basin, salt enters the Colorado River and its tributaries from groundwater flows, surface runoff, and from non-point sources such as saline springs. Dissolution of geologic evaporate deposits results in highly saline groundwater that ultimately contributes salt to the Colorado River system. Surface runoff from BLM-administered lands on the entire Colorado Plateau are estimated to contribute less than 15 percent of the total salt load, and the PFO would be a smaller portion of that total contribution. Controlling salinity in rangeland surface runoff is closely related to vegetation management and minimizing soil erosion, especially in areas that have saline or sodic soils.

Saline geologic formations and slight to highly saline soils are extensive in the PFO. Major salt-bearing formations in the PFO include the Summerville, Moenkopi, Carmel, Curtis, Morrison, Cedar Mountain, and Mancos. Badlands and gypsumlands are natural sources of sediment and salt. These areas lack vegetation, but they frequently have a thin mantle of hard shale, rock fragments, or soil crusts, which provides some stability and helps prevent surface erosion. Badlands occur mainly on exposures of the Morrison, Cedar Mountain, and Mancos Formations, whereas gypsumlands occur mainly on exposures of the Carmel and Summerville Formations. Present losses of sediment from badlands and gypsumlands are estimated at 5 to 50 tons per acre per year.

Although they can inhibit vegetation growth, salts that are held deeper in the soil profile are generally not a major source of salinity to the Colorado River system, except along drainages where bank erosion or subsurface leaching occurs. However, several plants in the PFO (i.e., mat saltbrush, halogeton, wedgeleaf, saltbrush, salt cedar, shadescale, greasewood, and fourwing saltbush) concentrate salts in their tissues. The salts are available for transport to the drainage system in plant litter. Badlands and gypsumlands are natural sources of sediment and salt.

Soils rated very high in salinity (greater than 16 millimhos per centimeter [mMhos/cm]) are found mostly in eastern Emery County, with a few small areas scattered throughout eastern Carbon County. Soils rated moderate to high in salinity (i.e., 4 to 16 mMhos/cm) occupy mostly the eastern half of the PFO. Soils rated low in salinity (i.e., less than 2 mMhos/cm) are primarily found on the western half of the PFO at higher elevations.

Surface Water Quality and Riparian

Water quality comprises the measured physical, chemical, and biological characteristics of the streams in the area. The target parameters are set by State and federal regulations for particular stream segments or particular water uses. On public lands in the Colorado River Basin, the primary factors affecting surface water quality are runoff events containing appreciable sediments and salts. Runoff from public lands tends to accumulate salts and sediment from saline soils in drainages and transport them into the main drainages during intense local storms. The U.S. Geological Survey (USGS), and the State of Utah have established a gauging network on Price River and major tributaries to monitor salt content and compliance with water-quality standards on major stream segments.

Some parcels contain live water in the form of streams, springs, and seeps. These features are protected by riparian and wetland vegetation. Riparian areas are a form of wetland transition between permanently saturated wetlands and upland areas. They are defined as an area of land directly influenced by permanent (surface or subsurface) water. They have visible vegetation or physical characteristics reflective of permanent water influence. Streambanks with perennial water flow are typical riparian areas. It includes wetlands and those portions of floodplains and valley bottoms that support riparian vegetation. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil. However, it is important to note that an ephemeral stream is one that flows only in direct response to precipitation and whose channel is at all times above the water table. Thus, intermittent or seasonal streams which do not currently exhibit riparian characteristics may in fact be connected to a water table and could potentially develop riparian attributes with management changes.

Riparian areas comprise less than one percent of the public lands administered by the BLM. However, these small but unique areas are among the most important, productive, and diverse ecosystems in the PFO. Healthy and productive riparian areas provide water, food, cover, and travel lanes for many aquatic and terrestrial wildlife species, some of which are obligate to the riparian area and not found in dryer upland areas. Native riparian area plants and their root systems contribute to improved water quality and quantity by holding soils in place while filtering sediments, increasing ground water recharge, and protecting streambanks.

The Grassy Trails Intake (GTI) is located on the west side of the Grassy Trails Reservoir dam, at the headwaters of Trail Creek in Whitmore Canyon, within the southwestern block of parcel UT-1114-7604-055. Sunnyside and Carbon city use GTI as a surface water public water source (PWS). In the northeastern block is a BLM Public Water Reserve. In the western portion of the eastern block is East Carbon City's (ECC) consecutive connection (which is the Sunnyside city water system). Therefore, Lease Notices UT-LN-56 (DWSPZ) and UT-LN-57 (Public Water Reserve) should be applied to this lease parcel.

The GTI is within surface water protection Zone 3 of the Green River watershed and within surface water protection Zone 1 of the East Carbon City watershed. The ECC is within Zone 4 of the Green River watershed.

Groundwater Quality

Groundwater quality is highly variable, depending on the formation in which the aquifer is located and on the well location. Groundwater contamination is a continuing concern. BLM requires that the proposed casing and cementing programs shall be conducted as approved to protect and/or isolate all usable water zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. A review during the Application for Permit to Drill process requires a geologic evaluation of the potential subsurface formations that will be penetrated by the wellbore, followed by an engineering analysis of the drilling program to ensure the well construction design is adequate to protect the surface and subsurface environment, including the potential risks identified by the geologist, and all known or anticipated zones with potential risks. Surface casing will be set to a depth that protects all underground sources of drinking water, and into a competent formation to ensure adequate pressure control and protection. Usable water at accessible depths and serviceable minerals will be protected or isolated in the wellbore. All critical cement tops will be verified through the appropriate engineering techniques.

Soils including Prime and Unique Farmlands

General and detailed soils information for part of the PFO is contained in the Soil Survey of Carbon-Emery Area, Utah (USDA SCS 1970) and the Soil Survey of Carbon Area, Utah (USDA SCS 1988).These two surveys cover all of Carbon County and much of the private land in the northwestern portion of Emery County. Draft soil survey information exists for portions of the remaining BLM lands in Emery County.

Soils vary based on landform, geology, vegetation, and climate. They range from shallow, poorly developed, and rocky soils on plateaus, cliffs, and ridges to deeper, more productive soils on alluvial fans and in valley bottoms. The dry climate

and parent materials also affect development and concentrations of carbonates (lime), salts, and gypsum within the soils and rooting zones, in turn affecting plant growth and water movement. Some soils are extremely alkaline and have saline or sodic properties that affect their use and management. The Mancos Shale Lowlands are characterized by soils with distinctive features, including claypans and layers of gypsum, which contribute to their high erosion potential.
Some soils in the PFO have a high potential for contributing salt and sediment to drainages, high susceptibility to water or wind erosion when disturbed, and high runoff potential. Water erosion is a function of rainfall, soil erodibility, length of slope, percentage of slope, vegetation cover, soil conditions, and management practices. Bank erosion is accelerated in stream channels as a result of damming practices, improperly functioning riparian systems, and hydrologically unstable streams. Soils have natural erosion rates that are a function of inherent soil properties, slope, aspect and climate, which, in turn, also determine the ability of the site to support vegetation.

Soils with textures that are highly susceptible to water erosion generally have a high proportion of coarse to very fine sands, or silts, with little binding material such as clay or organic matter. Loams and silty clay loams intermixed with barren shale, rubbleland, or rock outcrop are found widely distributed throughout the PFO. When the vegetation or biologic crust on these soils is removed, such as by surface disturbance, fire, or heavy grazing pressure, the soils are subject to accelerated erosion. Under adequate vegetation cover, soil loss is less than 1 ton per acre per year; with poor cover, soil loss can exceed 5 tons per acre per year. When these soils are disturbed, 10 tons per acre or more per year could be lost.

Intense, often localized, convective storms from midsummer to early fall can flashflood dry washes and streams. This occurs most often in areas with high runoff potential, including extensive rock outcrop and badlands. The major stream channels throughout the PFO are subject to flooding from spring snowmelt at higher elevations. Soils are also subject to erosion along floodplains of major stream channels.

In 1981 the Farmland Protection and Policy Act (FPPA), 7 U.S.C. 4201 was enacted in order to minimize the loss of prime farmland and unique farmlands as a result of Federal actions by converting these lands to nonagricultural uses. It assures that federal programs are compatible with state and local governments, and private programs and policies to protect farmland.

As defined by FPPA, prime farmland is farmland that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops, and is also available for these uses. A unique farmland is land other than prime farmland that is used for production of specific high-value food and fiber crops; it has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops.

Federal agencies that authorize actions that result in the conversion of prime or unique farmland not already committed to urban development or water storage are responsible for compliance with the FPPA. Compliance is to be coordinated with the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).

All federal actions including federal funding such as funding grants or other programs; issuance of federal permits; construction or purchase of federal facilities; use of federal lands; and agency rulemaking are subject to the FPPA.

Where there are farmland soils identified at a proposed site, the applicant must complete Section I and III of the Farmland Conversion Impact Rating Form (AD1006) (http://www.nrcs.usda.gov/programs/fppa/pdf_files/AD1006.PDF) and submit it to the NRCS for review. Several parcels include soils that can be considered prime farmlands if irrigated. The parcels are 021, 028, 029, 031, 032, 036, 040, 041, 043, 044, 045, 047, 048, and 049. One parcel containing a soil considered prime and of statewide significance is parcel 046.

3.3.4 Threatened, Endangered, Candidate or Sensitive Plants

Under Section 7 of the Endangered Species Act (ESA), the BLM is required to consult with the USFWS on any proposed action which may affect federally listed threatened or endangered species or species proposed for listing. Section 7 consultation efforts [a Biological Assessment (BA) and subsequent Biological Opinion (BO)] covering a wide variety of actions, including oil and gas leasing, associated with the current BLM land use plans in Utah was completed October 2008 (BLM 2008c). The BO includes species-specific lease notices that were developed during the Section 7 process. Informal consultation is conducted before each lease sale to ensure the appropriate lease notices from the BO are attached to the lease parcels. When habitat is thought to be present, these lease notices are to be attached to oil and gas leases offered in Utah.

Washington Office (WO) Instruction Memorandum (IM)-2002-174, directs that the BLM attach an Endangered Species Act stipulation to leases to protect threatened and endangered along with other special status species. According to this stipulation, the BLM will not approve any ground-disturbing activity until obligations under applicable requirements of the ESA have been fulfilled, including completion of any required procedure for formal or informal conference or consultation.

43 CFR 3162.1(a) provides the BLM with broad authority to ensure compliance of lessees with orders of the authorized officer issued for the protection of the environment. Conservation measures (lease notices and stipulations) as discussed above increase the likelihood that the BLM and by association, the lessee, will not have to complete formal Section 7 consultation at the project level; however it should be noted that BLM may be required to reinitiate Section 7 consultation at the project-level, as necessary, to ensure proper management of listed species in the future. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. Until there is a site-specific proposal, there is no action directly or indirectly causing modifications to the land, water, or air.

Based on habitat requirements, there are seven federally listed plants and 16 BLM sensitive plants species with potential to occur within Carbon and Emery Counties. Potential for the plants to occur within the proposed lease parcels was determined by review of the available geology layers, known populations, Utah Natural Heritage Program information, GIS and species specific habitat models and other BLM records. Field visits were conducted on April 8 and 10 2014 to verify habitat suitability. Based on the review of records and site visits, there are no federally listed species within the parcels. However, two Utah BLM sensitive plant species are potentially present in the proposed lease parcels.

Creutzfeldt flower *(Cryptantha creutzfeldtii)*

Creutzfeldt flower is a Utah BLM sensitive plant species, endemic to Carbon and Emery counties. This member of the Borage family is a perennial herb. The plant produces white flowers. Known occurrences of the species are found growing in mancos shale in shadscale and mat saltbush communities.

Based on appropriate geology and elevation and nearby known locations there is potential habitat in parcels UT-1114: 021, 029, 030, 031, 032, 034, 035, 045, 046, 047, 048, and 049.

Horse Canyon Stickleaf *(Mentzelia multicaulis var librina)*

Horse Canyon stickleaf is a Utah BLM sensitive plant species. This member of the stickleaf family is a long lived, clump forming perennial herb. Known occurrence of the species are found growing in Sagebrush, rabbitbrush, and pinyon-juniper communities on Mancos and Price River formations.

Based on appropriate geology and elevation and nearby known locations there is potential habitat in UT-1114- 030, 031, 032, 038, 040, 041, 042, 055, 056.

3.3.5 Non-WSA Lands with Wilderness Characteristics

Non-Wilderness Study Area (WSA) lands with wilderness characteristics are defined as areas having at least 5,000 acres in a natural or undisturbed condition that provide an outstanding opportunity for solitude and/or primitive forms of recreation. Many of these areas are adjacent to or contiguous with WSAs. Detailed information about non-WSA lands with wilderness characteristics is part of the administrative record for the Price ROD RMP/EIS (October 2008). The following records are incorporated by reference: (1) 1999 Utah Wilderness Inventory; (2) 1999 Utah Wilderness Inventory Revision Document for the Price Field Office; (3) 1999 Utah Wilderness Inventory case files for the Vernal Field Office; (4) Reasonable Probability Determinations for the Price Field Office; and (5) Documentation of Wilderness Characteristics Review for the Price Field Office. (Table 3-22 of the Proposed RMP/Final EIS).

The Price ROD RMP/EIS identified "BLM Natural Areas", non-WSA lands with wilderness characteristics that would be managed for the protection of their wilderness values, as well as non-WSA lands with wilderness characteristics that, based upon the analysis in the Price RMP/EIS, would not be managed for their wilderness characteristics.

Proposed lease parcel UT-1114-035 (parcel #035) intersects non-WSA lands within the Price River wilderness inventory area (WIA). The Price ROD RMP/EIS (pages 35-36) made the determination that all of the non-WSA lands with wilderness characteristics within proposed lease parcel #035 would not be managed for those characteristics. There are no BLM Natural Areas present on the subject parcels.

The Price River WIA

The Price River WIA is large in size covering approximately 90,000 acres with wilderness characteristics. It extends from the mounds area on the north to the Cedar Mountain country on the south, with the Price River crossing through the northern half of the area and the Humbug country covering the southern half of the unit. During the PFO land use planning process, the Price River WIA non -WSA lands with wilderness characteristics were considered and thoroughly analyzed for the protection, preservation, and maintenance of those wilderness characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. The Price River unit is located in an oil and gas development area with a moderate to high potential for future development (BLM, 2008b). One parcel is located within this WIA, parcel #035.

CHAPTER FOUR - ENVIRONMENTAL IMPACTS

4.1 Introduction

This chapter discusses the environmental consequences of implementing the alternatives described in Chapter 2. Under NEPA, actions with the potential to affect the quality of the human environment must be disclosed and analyzed in terms of direct and indirect effects, whether beneficial or adverse and short or long term, as well as cumulative effects. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by an action and occur later or farther away from the resource but are still reasonably foreseeable. Beneficial effects are those that involve a positive change in the condition or appearance of a resource or a change that moves the resource toward a desired condition. Adverse effects involve a change that moves the resource away from a desired condition or detracts

from its appearance or condition. Cumulative effects are the effects on the environment that result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions.

The No Action alternative (offer none of the nominated parcels for sale), serves as a baseline against which to evaluate the environmental consequences of the Proposed Action alternative. For each alternative, the environmental effects are analyzed for the resource topics that were carried forward for analysis in Chapter 3.

4.2 General Analysis Assumptions and Guidelines

Leasing is an administrative action that affects economic conditions but does not directly cause environmental consequences. However, leasing is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a No Surface Occupancy (NSO) stipulation. Potential oil and gas exploration and production activities, committed to in a lease sale, could impact resources and uses in the planning area. Direct, indirect, or cumulative effects to resources and uses could result from as yet undetermined and uncertain future levels of lease exploration or development. In order to provide a basis for analysis, the Reasonably Foreseeable Development (RFD) scenario is applied to each of the alternatives analyzed in detail. The RFD scenario is a long term projection of oil and gas exploration, development, production, and reclamation activity in a defined area for a specified period of time and serves as an analytical baseline for identifying and quantifying direct, indirect, and cumulative effects of oil and gas activity, under standard lease terms and conditions, on all potentially productive areas open to oil and gas leasing, and forms the foundation for the analysis of the effects of oil and gas management decisions.

In general, the BLM Utah State Office conducts a quarterly competitive lease sale to sell available oil and gas lease parcels in the state. In the process of preparing a lease sale, the BLM USO compiles a list of lands nominated and legally available for leasing, and sends a draft parcel list to the appropriate District Office where the parcels are located. District and field office staff then review and verify that the parcels are in areas open to leasing; that any new information that has become available, or any circumstances that have changed, are assessed to determine what level of analysis is required; that appropriate stipulations and notices can been included; that appropriate consultations have been conducted, when necessary; and that any special resource conditions are identified for potential bidders.

The field office then either determines that existing analyses provide an adequate basis for leasing recommendations or that additional NEPA analysis is needed before making a leasing recommendation. In most instances, an EA will be initiated for the parcels within the district or field office to meet the requirements of WO IM 2010-117. The EA results in a list of available lease parcels and stipulations or notices as part of the analysis. The EA and unsigned FONSI are then made available to the public for a 30-day public comment period on the BLM web page and ENBB. After analyzing and incorporating all comments received during the public comment period, changes to the document and/or lease list parcels are made as necessary. The EA and unsigned FONSI are posted again when the Notice of Competitive Lease Sale (NCLS), a list of available lease parcels and stipulations is issued. The NCLS initiates the protest period (30 days) on the parcel list. The protest period ends 60 days before the scheduled lease sale. Lease stipulations and notices applicable to each parcel are specified in the sale notice.

It is unknown when, where, or if future well sites or roads might be proposed on any leased parcel. Although no site-specific activities are specified, analysis of projected surface disturbance impacts, should a lease be developed, was estimated based on the RFD in the PFO Record of Decision and Approved Resource Management Plan and its associated Final Environmental Impact Statement. This EA would be used to determine the necessary administrative actions, stipulations, lease notices, special conditions, or restrictions that would be made a part of an actual lease at the time of issuance. If leases are offered, purchased, and issued, typical subsequent developments may include the construction of

drill pads, access roads, and other ancillary facilities. Detailed site-specific analysis of individual wells, roads, and facilities would occur when a lease holder submits an APD. Under all alternatives, continued interdisciplinary support and consideration would be required to ensure on-the-ground implementation of planning objectives, including the proper implementation of stipulations, lease notices, Best Management Practices (BMPs) and required consultation through the APD process.

Standard lease terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, October 2008 or later edition). Although once the lease has been issued, subject to lease stipulations the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands, operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Compliance with valid, nondiscretionary statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are part of all of the alternatives. Nondiscretionary actions include the BLM's requirements under federal environmental protection laws, such as the Clean Water Act (CWA), Clean Air Act (CAA), Endangered Species Act (ESA), National Historic Preservation Act (NHPA), and FLPMA, which are applicable to all actions on federal lands even though they may not be reflected in the oil and gas stipulations in the RMP(s) and would be applied to all potential leases regardless of their category. Also included in all leases are the two mandatory stipulations for the statutory protection of cultural resources (WO IM-2005-03, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing) and threatened, endangered and special status species (WO IM-2002-174, Endangered Species Act Section 7 Consultation). BLM would also encourage industry to consider participating in EPA's Natural Gas STAR program under all alternatives. The program is a flexible, voluntary partnership between EPA and the oil and natural gas industry wherein EPA works with companies that produce, process, transmit and distribute natural gas to identify and promote the implementation of cost-effective technologies and practices to reduce emissions of methane, a greenhouse gas.

For purposes of the effects analysis, the RFD and the primary construction, operations, and abandonment elements described below would be similar for the Proposed Action and No Action alternatives.

4.2.1 Reasonably Foreseeable Development

The RFD scenario serves as an analytical baseline for identifying and quantifying direct, indirect, and cumulative effects of oil and gas activity and forms the foundation for the analysis of the effects of oil and gas management decisions in planning and environmental documents. The PFO Proposed Resource Management Plan and Final Environmental Impact Statement (RMP EIS) Appendix M describes in detail fluid mineral RFD scenarios for PFO area. In those analyses it was estimated based on the occurrence potential and past exploration and development activities that the BLM believes that future exploration and development are most likely to occur on the Wasatch (Emery/Book Cliffs CBNG Plays) which primarily run along highways 6 and 10; and the Tavaputs Plateau in the far northeast area of the field office.

The PFO Proposed RMP/Final EIS Appendix M states that the initial surface disturbance impacts from oil and gas activity for the Proposed RMP are 15,210 acres over 20 years. The long-term surface disturbance impacts from oil and gas activity for the Proposed RMP are 5,620 acres over 20 years. Impacts from past and present activity are estimated at 3,200 acres (after reclamation), and when added to projected future activity, the estimate is about 18,500 acres in total disturbance. Future initial impacts will be reduced from 7.9 to 2.8 acres per well pad through reclamation, resulting in a net total

disturbance of approximately 8,800 acres. Application of BMPs and revised mitigation resulting from improved technologies and adaptive management processes are expected to further reduce impacts in the future.

For analysis purposes, this EA assumes that one well and associated facilities would be developed on each lease parcel.

4.2.2 Well Pad and Road Construction

Equipment for well pad construction would consist of dozers, scrapers, and graders. Topsoil from each well pad would be stripped to depth and stockpiled for future reclamation. The topsoil would be seeded with native species of plants and left in place for the life of the well, then used during the final reclamation process. Disturbance for each well pad would be estimated at an area of approximately 175 feet by 250 feet (one acre), including topsoil piles. For this analysis, it was assumed that disturbance for well pads could be as high as six acres per well to account for any access roads and well pad construction. Disturbed land would be seeded with a mixture and rate recommended or required by the BLM.

Depending on the locations of the proposed wells, it is anticipated that some new or upgraded access roads would be required to access well pads and maintain production facilities. Construction of new roads or upgrades to existing roads would require a 30-foot wide right of way (ROW) and would be constructed of native material. It is not possible to determine the distance of road that would be required because the location of the wells would not be known until the APD stage. However, for purposes of analyses it is assumed that disturbance from access roads would be similar to development in other areas (five acres of disturbance).

All operations would be conducted following the "Gold Book" Surface Operating Standards for Oil and Gas Exploration and Development (BLM 2002b). The Gold Book was developed to assist operators by providing information on the requirements for conducting environmentally responsible oil and gas operations on federal lands. The Gold Book provides operators with a combination of guidance and standards for ensuring compliance with agency policies and operating requirements, such as those found at 43 CFR 3000 and 36 CFR 228 Subpart E; Onshore Oil and Gas Orders (Onshore Orders); and Notices to Lessees. Included in the Gold Book are environmental BMPs; these measures are designed to provide for safe and efficient operations while minimizing undesirable impacts to the environment.

Proper planning and consultation, along with the proactive incorporation of these BMPs into the APD Surface Use Plan of Operations (SUPO) by the operator, will typically result in a more efficient APD and environmental review process, increased operating efficiency, reduced long-term operating costs, reduced final reclamation needs, and less impact to the environment.

4.2.3 Produced Water Handling

Water is often associated with either produced oil or natural gas. Water is separated out of the production stream and can be temporarily stored in the reserve pit for 90 days. Permanent disposal options include surface discharge pits or underground injection. Handling of produced water is addressed in Onshore Oil and Gas Order No. 7, which prescribes measures required for the protection of surface and ground water sources.

4.2.4 Plugging and Abandonment

If the wells do not produce economic quantities of oil or gas, the well would be plugged and abandoned. The wells would be plugged and abandoned following specifications from a BLM Petroleum Engineer, which would include requiring cement plugs at strategic positions in the well bores. All fluids in the reserve pit would be allowed to dry prior to reclamation work. After fluids have evaporated from the reserve pit, sub-soil would be backfilled and compacted within

90 days. If the fluids within the reserve pit have not evaporated within 90 days, the fluid would be pumped from the pit and disposed of in accordance with applicable regulations. The well pad would be recontoured, and topsoil would be replaced, scarified, and seeded within 180 days of the plugging the well. All reclamation efforts would be coordinated closely with the project lead in the PFO. Reclamation would meet the objectives described in the Green River District Reclamation Guidelines (IM UTG000-2014-004).

4.3 Direct and Indirect Impacts

4.3.1 Alternative A – Proposed Action

This section analyzes the impacts of the proposed action on those potentially impacted resources described in Chapter 3 – Affected Environment, above.

4.3.1.1 Air Quality

The act of leasing would not result in changes to air quality. However, should the leases be issued, development of those leases could impact air quality conditions. It is not possible to accurately estimate potential air quality impacts by computer modeling from the project due to the variation in emission control technologies as well as construction, drilling, and production technologies applicable to oil versus gas production and utilized by various operators, so this discussion will remain qualitative. Prior to authorizing specific proposed projects on the subject lease parcels quantitative computer modeling using project specific emission factors and planned development parameters (including specific emission source locations) will need to be conducted to adequately analyze direct and indirect potential air quality impacts. Air quality dispersion modeling which may be required includes impact analysis for demonstrating compliance with the NAAQS, plus analysis of impacts to Air Quality Related Values (i.e. deposition, visibility), particularly as they might affect nearby Class 1 areas (National parks and Wilderness areas).

The Proposed Action is considered to be a minor source under the Clean Air Act. Minor sources are not controlled by regulatory agencies responsible for implementing the Clean Air Act. In addition, control technology is not required by regulatory agencies at this point, since the Uinta Basin is considered to be in attainment of the NAAQS. The Proposed Action would result in different emission sources associated with two project phases: well development and well production. Annual estimated emissions from the Proposed Action are summarized in Table 3.

Well development includes emissions from earth-moving equipment, vehicle traffic, drilling, and completion activities. NO_X, SO_2, and CO would be emitted from vehicle tailpipes. Fugitive dust concentrations would increase with additional vehicle traffic on unpaved roads and from wind erosion in areas of soil disturbance. Drill rig and fracturing engine operations would result mainly in NO_X and CO emissions, with lesser amounts of SO_2. These temporary emissions would be short-term during the drilling and completion times.

During well production there are continuous emissions from separators, condensate storage tanks, and daily tailpipe and fugitive dust emissions from operations traffic. During the operational phase of the Proposed Action, NO_x, CO, VOC, and HAP emissions would result from the long-term operation of condensate storage tank vents, and well pad separators. Additionally, road dust (PM_{10} and $PM_{2.5}$) would be produced by vehicles servicing the wells.

Emissions Inventory (2011) (Measured in Tons per Year (TPY).

Pollutant	Carbon	Emery
PM_{10}	1010.979	1792.626

$PM_{2.5}$	618.487	678.873
SOx	8370.740	7243.353
NOx	6132.159	21511.124
VOC	16847.970	32123.164
CO	8293.984	21686.845

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOC) are also considered in this EA as they, along with NOx, are precursors to the formation of ozone and are listed by UDAQ as a pollutant that, if the threshold is exceeded, would require an approval order

Emissions of NOx and VOC, ozone precursors, are 16.4 tons/yr for NOx, and 9.0 tons/year of VOC (Table 3). Project emissions of ozone precursors would be dispersed and/ or diluted to the extent where any local ozone impacts from the Proposed Action would be indistinguishable from background conditions. The primary sources of HAPs are from oil storage tanks and smaller amounts from other production equipment. Small amounts of HAPs are emitted by construction equipment. However, these emissions are estimated to be less than 1 ton per year. Based on the negligible amount of project-specific emissions, the Proposed Action is not likely to violate, or otherwise contribute to any violation of any applicable air quality standard, and may only contribute a small amount to any projected future potential exceedance of any applicable air quality standards.

Emissions Inventory for Parcels Outside of West Tavaputs Plateau (WTP) Project Area:

Due to the very small level of anticipated development (1 well per year), an emission inventory (EI) has not been conducted for the parcels that occur outside of the WTP project area. A typical oil and gas well EI is estimated for the purpose of this analysis and is based on the following analysis assumptions:

- Each oil and gas well would cause 6 acres of surface disturbance. This acreage is divided into 5 acres for road and pipeline construction and 1 acre for well pad construction.
- Construction activity for each well is assumed to be 10 days. It is further assumed that, based on the acreage disturbed, 4.5 days would be spent in well pad construction and 5.5 days would be spent in road and pipeline construction.
- Control efficiency of 25% for dust suppression would be achieved as a result of compliance with Utah Air Quality regulation R307-205.
- Post construction particulate matter (dust) emissions are likely to occur on a short term basis due to loss of vegetation within the construction and staging areas. Assuming appropriate interim reclamation, these emissions are likely to be minimal to negligible and will not be considered in this EA.
- Drilling operations would require 14 days.
- Completions and testing operations would require 3 days.
- Off road mobile exhaust emissions from heavy equipment during construction activities and on road mobile emissions will not be considered as they are dispersed, sporadic, temporary, and not likely to cause or contribute to exceedence of the National Ambient Air Quality Standards.

- The estimated EI for the typical well includes particulate matter of less than 10 micrometers in diameter (PM_{10}), nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC). Emissions of sulfur dioxide (SO_2) and lead (Pb) from oil and gas development activities are insignificant and are not included.

Lease stipulation UT-S-01 Air Quality, which regulates the amounts of NOx emission per horse-power hour based on internal combustion engine size, would be attached to all parcels.

- New and replacement internal combustion gas field engines of less than or equal to 300 design-rated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.

- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.

Additional air impact mitigation strategies have recently been developed in the Uinta Basin. The BLM in coordination with the EPA and the UDAQ, among others, developed the following air quality mitigation measures. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from activities carried out during oil and gas development (including but not limited to construction, drilling, and production). As per the WTP ROD and the GNB DEIS, as supplemented, the following avoidance and minimization measures should be considered in the Plan of Development (UT-LN-96):

- Electric compression, where feasible.

- Emission controls having a control efficiency of 95 percent on existing condensate tanks with a potential to emit of greater 20 tpy, and on new condensate tanks with a potential to emit of 5 tpy VOCs.

- Green completions for all well completion activities.

- Tier II drill rig engines by 2012, with phase-in of Tier IV engines or equivalent emission reduction technology as soon as possible thereafter, but no later than 2018.

- Lean burn natural gas-fired stationary compressor engines or equipment with equivalent emission rates.

- Catalyst on all natural gas-fired compressor engines to reduce the emissions of CO and VOCs.

- Dry seals on new centrifugal compressors.

- An annual inspection and maintenance program to reduce VOC emissions, including:

    - Performing inspections of thief hatch seals and Enardo pressure relief valves to ensure proper operations.

    - Reviewing gathering system pressures to evaluate any areas where gathering pressure may be reduced, resulting in lower flash losses from the condensate storage tanks.

    - Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater.

- Low bleed pneumatics would be installed on separator dump valves and other controllers. The use of low bleed pneumatics would result in a lower emission of VOCs.

- During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible.

- Well site telemetry would be utilized as feasible for production operations.

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO_x per horsepower-hour.

Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures would be developed and implemented in coordination with the EPA, the UDAQ, and other agencies with expertise or jurisdiction as appropriate (UT-LN-97).

Regional ozone formation controls (UT-LN-99) and additional air quality analysis (UT-LN-102) notices would also be applied to each parcel.

Application of these lease notices to each of parcels on federal surface would be adequate for the leasing stage to disclose potential future restrictions and to facilitate the reduction of potential impacts upon receipt of a site specific APD.

4.3.1.2 Hydrology

Hydrologic Conditions

The associated surface disturbance from oil and gas development on the proposed leases would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. The construction of roads and pipelines could interrupt surface runoff and create paths for concentrated surface flow. Impacts to hydrologic conditions could increase sediment loading and associated dissolved solids into streams. Application of Stipulations UT-S-126, UT-S-127, and UT-S-156 is warranted.

Drill pads would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. Flow patterns moving onto the pads and around them would have reduced vegetation to slow flows and filter sediments. Berm placement around the well pads and proper placement of the drill pads would mitigate these impacts. Application of Stipulations UT-S-126, UT-S-127, and UT-S-156 is warranted.

The installation of service roads to well pads would create possibility of concentrated flows along those roadways. Crowning and ditching is required on all roads to mitigate this impact. Compliance with the Gold Book standards would be required.

Water Quality

Maintenance and refueling of equipment could impact water quality from spills and releases. If field maintenance and fueling are to occur, an SPCC Plan is required.

Eroded materials could impact streams through runoff creating increased sediment impacting surface water quality. Crowning and ditching of roads would reduce this impact to negligible. Regular maintenance of roads and facilities will be required, and kept in a workable condition.

The Grassy Trails Intake (GTI), within the southwestern block of UT-1114-055, is a surface water public water source (PWS) for Sunnyside and Carbon cities. In order to protect this resource Lease Notices UT-LN-56 (DWSPZ) and UT-LN-57 (Public Water Reserve) will be attached to this lease.

There is a potential for impacts to groundwater levels and groundwater quality, but the standard practice of casing and cementing through the groundwater zones would mitigate impacts. In addition, a BLM petroleum engineer and geologist will review each APD's casing and cementing program to ensure all of BLM's requirements for resource protection, including groundwater protection are met utilizing the Ground Water Protection IM No. UT 2010-055.

Construction of facilities could impact springs and streams through increased runoff and soil erosion, impacting water quality. No surface disturbance or occupancy would be maintained within 660 feet of any natural springs to protect the water quality of the spring. No new disturbance will be allowed in areas equal to the 100-year floodplain or 100 meters on either side of the center line of any stream, stream reach, or riparian area, whichever distance is greater. Lease Stipulations UT-S-126 and UT-S-127 are attached to all affected parcels (Natural Springs, and Floodplains, Riparian Areas, Springs and Public Water Reserves). At the time of development, drilling operators will conform to the provisions of the Onshore Oil & Gas Order Number 2, which requires the protection and isolation of all useable quality waters.

Drill pads and road construction during winter months could create increased soil erosion in elevations above 7,000 feet. Lease Stipulation UT-S-156 is applied to parcels above 7000 feet in elevation (High Country Watershed).

Fracking fluids and contaminants could be released into groundwater potentially degrading water quality. In order to prevent impacts to aquifers that discharge into the Green River and Price River, drill holes will be cased to below 4000 feet above sea level or when usable groundwater is encountered, casing shall be terminated at a level 100 feet below any encountered water bearing zone.

Soils

Well pads on steep slopes. These require care in placement and maintenance. All soils with high erosion potential need care to prevent accelerated erosion that could be transported to streams that are already listed on the 303d list. This will be accomplished by careful placement of drill pads and access routes. Regular maintenance on roads and pads in highly erosive soils will be required. Stipulations UT-S-97 and UT-S-101 are attached to all parcels.

Construction of well pads on steep slopes would create increased erosion. No Surface occupancy is applied on slopes greater than 40%. In surface disturbing proposals regarding construction on slopes of 20 percent to 40 percent, proponent would include an approved erosion control strategy and topsoil segregation/restoration plan. Such construction must be properly surveyed and designed by a certified engineer and approved by the BLM prior to project implementation, construction, or maintenance. Other standard operating procedures, best management practices and site specific mitigation applied at the APD stage including reclamation, as conditions of approval will address soil resource issues not already analyzed in the PFO Proposed RMP/Final EIS.

Many parcels include soils that have moderate to high erosion potential. Surface disturbance in these soils could create increased soil erosion. Care in placement of drill pads and access routes is required. On steep slopes, stipulations UT-S-97

and UT-S-101 would minimize erosion of soil. BLM would not allow construction on slopes that could not be properly mitigated.

The list below includes stipulations required in order to protect soils, water quality, and riparian resources:

Parcels with stipulations:

Parcel 005: UT-S-97, UT-S-101, UT-S-156
Parcel 007: UT-S-97, UT-S-101, UT-S-156
Parcel 009: UT-S-97, UT-S-101, UT-S-156
Parcel 010: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 011: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 020: UT-S-97, UT-S-101, UT-S-156
Parcel 021: UT-S-101, UT-S-156
Parcel 028: UT-S-97, UT-S-101, UT-S-127
Parcel 029: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 030: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 031: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 032: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 034: UT-S-101, UT-S-127
Parcel 035: UT-S-97, UT-S-101, UT-S-127
Parcel 037: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 038: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 040: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 041: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 042: UT-S-97, UT-S-101, UT-S-127, UT-S-156
Parcel 043: UT-S-97, UT-S-101, UT-S-127
Parcel 044: UT-S-97, UT-S-101, UT-S-127
Parcel 045: UT-S-97, UT-S-101, UT-S-126, UT-S-127
Parcel 046: UT-S-97, UT-S-101, UT-S-127
Parcel 047: UT-S-97, UT-S-101, UT-S-126, UT-S-127
Parcel 048: UT-S-97, UT-S-101, UT-S-127
Parcel 049: UT-S-97, UT-S-101, UT-S-127
Parcel 054: UT-S-97, UT-S-101, UT-S-127
Parcel 055: UT-S-97, UT-S-101, UT-S-126
Parcel 056: UT-S-97, UT-S-101, UT-S-127

4.3.1.3 Threatened, Endangered, Candidate or Sensitive Plant Species

Surface disturbance associated with drill pads, roads and other associated activities could impact habitat.

The issuance of leases would not directly impact threatened, endangered, candidate or sensitive plant species on the parcels. However, as the BLM generally cannot deny all surface use of a lease unless the lease is issued with a No Surface Occupancy stipulation, the issuance of leases does convey an expectation that drilling and development would occur. Chapter 3 identifies the species that could be impacted through future actions on leased parcels. Beyond the potential loss or damage to individuals these impacts include direct dispersed and indirect impacts including: the loss of suitable habitat for the species and its pollinators; increased competition for space, light, and nutrients with invasive and noxious weed species introduced and spread due to surface disturbing activities; accidental spray or drift of herbicides used during

invasive plant control; altered photosynthesis, respiration, and transpiration due to increased fugitive dust resulting from the surface disturbance and project related traffic.

Application of lease notice UT-LN-51 (BLM Sensitive Species) to each of the parcels identified in Chapter 3 provides adequate disclosure at the leasing stage of potential restrictions against future authorizations. Specific impacts to the identified species and their respective habitats resulting from future authorizations on the proposed leases cannot be analyzed until an exploration or development application is received, individual species surveys are completed, and necessary avoidance and mitigation is incorporated into the plan of development or applied to the application as a condition of approval.

4.3.1.4 Non-WSA Lands with Wilderness Characteristics

Potential impacts of leasing and future development activities on one of the proposed parcels would result in direct and indirect impacts to the wilderness characteristics, including loss of size, loss of naturalness, loss of outstanding opportunities for solitude, and loss of outstanding opportunities for primitive and unconfined recreation.

WIA Name	Total WIA Acres	WIA Acres overlaying parcels	Number of Parcels
Price River	90,000	767	1(UT1114-035)

Where development would occur within a parcel is currently unknown; also whether development would be proposed within the area of the parcel overlapping the WIA is currently unknown. If fluid mineral resources were developed, it is anticipated that at a minimum approximately six acres would be disturbed within the parcel as the result of the placement of a single well pad and access road. Regardless of the number of wells that may be established on the parcel, it is expected that the wilderness characteristic of naturalness will be directly lost at the pad and along the access road. Acreage within the unit that is not directly affected by drilling activity and road construction will retain its natural character. This is because topography and vegetative screening can disrupt the visual and auditory impacts from drilling activity. Other indirect impacts to the wilderness characteristic of outstanding opportunity for solitude will occur within the immediate vicinity of the drilling activity (visual and auditory impacts) and would extend beyond the areas of direct disturbance.

4.3.2 Alternative B -- No Action

4.3.2.1 Air Quality

The No Action alternative would not result in potential impacts because the parcels would not be leased or developed.

4.3.2.2 Hydrology

The No Action alternative would prevent future potential impacts relating to lease operations. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on non-leased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels.

4.3.2.3 Threatened, Endangered or Candidate Plant Species

The No Action alternative would prevent future potential impacts relating to lease operations. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels.

4.3.2.4 Non-WSA Lands with Wilderness Characteristics

The No Action Alternative would prevent future potential impacts relating to lease operations within the Non-WSA lands with wilderness characteristics. Impacts to Non-WSA lands with wilderness characteristics would continue at present levels from existing oil and gas development.

4.3.3 Cumulative Impacts Analysis

4.3.3.1 Air Quality

The Cumulative Impact Analysis Area (CIAA) for air quality is the Uinta Basin. Cumulative air quality impacts are defined as the combination of emissions resulting from the Proposed Action, existing nearby permitted sources, and Reasonably Foreseeable Development (RFD) within the region. Cumulative impacts are incorporated by reference to the Greater Natural Buttes air quality study, and the Gasco air quality study. The increase in emissions associated with the Proposed Action would be localized, in some cases temporary (well development phase), and on a much smaller scale in comparison with regional emissions. For regional ozone issues, when the emissions inventory for the Proposed Action is compared to the regional emission inventory compiled during the WRAP Phase III study for the Uinta Basin, 2006 Baseline Emissions, (WRAP, 2009), it can be seen from the table below that the VOC and NOx emissions from the Proposed Action comprise a small percentage of the WRAP baseline emissions.

Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Emission	Proposed [a] Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory [b] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NO_x	16.4	16,547	0.099
VOC	9.0	127,495	0.007

[a] see Table 4-2

[b] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html Uintah Basin Data

The WRAP Phase III baseline inventory for the Uinta Basin for VOC emissions in 2006 was 71,546 tons/yr. For 2012, the NOx and VOC emissions are projected at 16,547 and 127,495 ton/yr, respectively. Potential VOC emissions from the

Proposed Action represent 0.007% of the total 2012 VOC estimated emissions for the region, and potential NOx emissions from the Proposed Action represent 0.099% of the total 2012 VOC estimated emissions for the region.

Based on the magnitude of the projected increase in VOC emissions for the Uinta Basin from 2006 to 2012, and the inconsequential contribution that would be emitted from the Proposed Action, an accurate analysis of potential ozone impacts from the Proposed Action is not feasible. Any cumulative ozone impacts from the Proposed Action would be indistinguishable from, and dwarfed by, the margin of uncertainty associated with the regional cumulative VOC and NOx emission inventory. Thus the potential cumulative ozone impact from the Proposed Action cannot be modeled with any accuracy due to the level of the emissions from the Proposed Action, the size of the project, and the lack of model sensitivity. When compared to regional emissions inventories, the amounts of ozone precursors emitted from the Proposed Action are not expected to have a measurable contribution or effect on regional ozone formation. The No Action alternative would not result in an accumulation of impacts.

The assessment of GHG emissions and climate change is still in its earliest stages of formulation. At present, under current scientific data and models, it is not technically feasible to know with any certainty the net impacts to climate due to global emissions, let alone regional or local emissions. The inconsistency in results of scientific models used to predict climate change at the global scale, combined with the lack of scientific models designed to predict climate change on regional or local levels, prohibits the ability to quantify potential future impacts of decisions made at the local level, particularly for small scale projects such as the Proposed Action. However, drilling and development activities from the Proposed Action are anticipated to release a negligible amount of emissions, including GHGs, into the local airshed. The No Action alternative would not result in an accumulation of impacts.

4.3.3.2 Hydrology

The CIAA for hydrology is the Project area and downstream in the Price River to the confluence with Green River.

The associated surface disturbance should oil and gas development occur on the proposed leases would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. Should facilities be development close to or crossing waterways on the proposed parcels, the likelihood of project impacts would increase. These impacts could include increased sedimentation; increased salt loading; contamination by petroleum products, chemicals, or produced waters; and flow alterations. Impacts to hydrologic conditions could increase sediment loading and associated dissolved solids into streams. Impacts can be reduced or avoided through proper project design, construction, maintenance activities, and implementation of best management practices.

Specific locations, development techniques, and mitigation procedures are not included in the proposed action; therefore, specific descriptions of potential effects are unattainable at this time. Authorization of proposed projects would require full compliance with BLM directives and stipulations that relate to hydrologic conditions.

4.3.3.3 Threatened, Endangered, Candidate or Sensitive Plant Species

The CIA for Threatened, Endangered or Candidate or Sensitive Plant Species includes the PFO planning area. However, as suitable and occupied habitats have not been completely mapped and population estimates are largely unknown, accurate disturbance estimates for the CIA cannot be precisely quantified.

Cumulative impacts to Threatened, Endangered or Candidate or Sensitive Plant Species is directly associated with their ongoing habitat losses, sensitivity to disturbance, and declining population numbers, these species would be more sensitive than other, more common species to impacts related to development within the CIA. Past, present, and

reasonably foreseeable surface-disturbing land uses have reduced, and will likely continue to reduce, the quality and quantity of suitable and occupied habitats in the CIA for Threatened, Endangered or Candidate or Sensitive Plant Species.

Based on direct and indirect cumulative impacts, ongoing and future oil and gas development and other land uses such as OHV travel, forage utilization by livestock and wildlife, and noxious weed encroachment and management in the CIA could cumulatively and incrementally reduce and fragment habitats for Threatened, Endangered or Candidate or Sensitive Plant Species.

4.3.3.4 Non-WSA Lands with Wilderness Characteristics

Cumulative impacts to lands with wilderness characteristics were considered in detail within the PFO RMP/ROD. Cumulative impacts resulting from other past, present and reasonably foreseeable actions, including oil and gas development include loss of size, loss of naturalness, loss of outstanding opportunities for solitude, and loss of outstanding opportunities for primitive and unconfined recreation. During the PFO land use planning process, the Price River Unit non-WSA lands were considered and thoroughly analyzed for the protection, preservation, and maintenance of those wilderness characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. The Approved Resource Management Plan, October 2008, Record of Decision, determined that the non-WSA lands with wilderness characteristics would not be managed for those characteristics because those lands were found to have resource uses that would conflict with protection, preservation, or maintenance of the wilderness characteristics (BLM, 2008b). The Price River Unit falls within that determination.

5 CONSULTATION AND COORDINATION

5.1 Introduction

The issue identification section of Chapter 1 identifies those issues analyzed in detail in Chapter 4. The Interdisciplinary Team Checklist provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

5.2 Persons, Groups, and Agencies Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
U.S. National Park Service (NPS)	Consult with the NPS regarding potential impacts to NPS Units, including National Historic Trails.	On February 14, 2014, a memorandum providing notice of the lease sale, parcel locations and an invitation to attend parcel site-visits was transmitted to NPS. On February 27, 2014, GIS data depicting the proposed lease parcels was transmitted to NPS by electronic mail. Coordination is ongoing.
U.S. Fish & Wildlife Service (USFWS)	Information on Consultation, under Section 7 of the Endangered Species Act (16 USC 1531)	On February 14, 2014, a memorandum providing notice of the lease sale, parcel locations and an invitation to attend parcel site-visits was transmitted to USFWS. Coordination is ongoing.
Utah State Historic Preservation Office (SHPO)	Consultation for undertakings, as required by the National Historic Preservation Act (NHPA) (16 USC 470)	A letter was sent to the SHPO on May 8, 2014 requesting their review and comment on BLM's determination of No Historic Properties Affected; eligible sites present but not affected as defined by CFR 800.4. SHPO replied to BLM's request on May 14, 2014 by concurring with BLM's determination of effect for the proposed parcels. Coordination is ongoing.
Utah Division of Wildlife Resources (UDWR)	Coordination with UDWR as the agency with expertise on wildlife species.	On February 14, 2014, a letter providing notice of the lease sale, parcel locations and an invitation to attend parcel site-visits was transmitted to UDWR. On January 31, 2014, GIS data depicting the proposed lease parcels was

		transmitted to UDWR by electronic mail. Representatives from UDWR participated in site-visits to the proposed parcels on April 8 and April 10, 2014. A comment letter on wildlife was received on May 19, 2014. Coordination is ongoing.
U.S. Forest Service	Consult as USFS as a leasing program partner.	On February 14, 2014, a memorandum providing notice of the lease sale, parcel locations and an invitation to attend parcel site-visits was transmitted to the U.S. Forest Service. Coordination is ongoing.
School and Institutional Trust Lands Administration (SITLA)	Coordinated with as leasing program partner.	On February 14, 2014, a letter providing notice of the lease sale, parcel locations and an invitation to attend parcel site-visits was transmitted to SITLA. Coordination is ongoing.
Public Lands Policy Coordination Office (PLPCO)	Coordinated with as leasing program partner.	On February 14, 2014, a letter providing notice of the lease sale, parcel locations and an invitation to attend parcel site-visits was transmitted to PLPCO. Coordination is ongoing.
Paiute Tribe of Utah (PITU), Ute Indian Tribe, Hopi Tribe, Zuni Tribe, Navaho Nation, Ute Mountain Tribe, Southern Ute Tribe, Northwestern Band of Shoshone Nation, Shoshone-Bannock Tribes, and Eastern Shoshone Tribe (Collectively: Tribes)	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	Letters containing notification of this lease sale, location maps, and legal descriptions of the proposed parcels were sent to the Tribes. The letters detailed the leasing proposal and requested comments and concerns. Consultation ongoing.
Private Landowners	Coordination as outlined by WO IM 2010-117 and NEPA.	Letters were sent to private surface estate owners on 5/2/2014. Two landowners contacted BLM with general inquiries into the sale process. Individuals were informed of the pending EA comment period and protest provisions of the

		Notice of Competitive Lease Sale.

5.3 Summary of Public Participation

In order to meet the intent of the CEQ regulations that require an "early and open process for determining the scope of issues to be addressed and for identifying issues related to a Proposed Action" (40 CFR 1501.7) several actions were taken to involve the public.

BLM utilized and coordinate the NEPA public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f) pursuant to 36 CFR 800.2(d)(3). The information about historic and cultural resources within the area potentially affected by the proposed project/action/approval will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA. BLM is consulting with Indian tribes on a government-to-government basis in accordance with Executive Order 13175 and other policies. Tribal concerns, including impacts on Indian trust assets and potential impacts to cultural resources, are given due consideration. Federal, State, and local agencies, along with other stakeholders that may be interested in or affected by the proposed project/action/approval were invited to participate in the scoping process.

On June 13, 2014, the public was notified of the proposed action by posting on the Utah BLM Environmental Notification Bulletin Board. The process used to involve the public included a 30-day public review and comment period for a draft EA and unsigned FONSI from June 13, 2014 to July 14, 2014. In addition to the ENBB, the EA and unsigned FONSI were posted on the BLM Utah's Oil and Gas Lease Sale webpage.

All the information related to this EA is maintained on the identified websites (ENBB and Oil and Gas Leasing).

5.3.1 Modifications Based on Public Comment and Internal Review

5.3.2 Response to Public Comment -- See Appendix E

5.4 List of Preparers

Name	Office	Title	Responsible for the Following Section(s) of this Document
Don Stephens / Anita Jones	PFO	Natural Resource Specialists	Project Leads
Leonard Herr / Colin Schwartz	USO	Air Quality Specialists	Air Quality
Michael Wolfe	PFO	Archaeologist	Cultural Resources
Jeffrey Brower	PFO	Hydrologist	Hydrologic Conditions; Wetland/Riparian Zones
Dana Truman/ Karl Ivory	PFO	Range Specialists	Threatened, Endangered or Candidate Plant Species
Jared Reese	PFO	Wildlife Biologist	Fish and Wildlife Excluding USFWS Listed Species and BLM Sensitive Species, e.g. Migratory Birds; BLM Sensitive Species; ESA Candidate Animal Species
Matt Blocker	PFO	Recreation Specialist	Non-WSA Lands with Wilderness Characteristics
Josh Winkler	PFO	Recreation Specialist	Recreation, Areas of Critical Environmental Concern (ACECs); Visual Resource Management
Mike Leschin	PFO	Paleontologist	Fossil Resources
Ahmed Mohsen	PFO	Acting Field Manager	NEPA Coordination
Tyler Nelson	PFO	GIS Specialist	GIS / Maps

6 REFERENCES, ACRONYMS AND APPENDICES

6.1 References Cited

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WO IM 2012-043 Greater Sage-Grouse Interim Management Policies and Procedures, December 2011.

Ground Water Protection IM No. UT 2010-055

6.2 List of Acronyms

APD	Application for Permit to Drill
ACEC	Area of Critical Environmental Concern
BLM	Bureau of Land Management
BMP	Best Management Practices
CBNG	Coalbed Natural Gas
CFR	Code of Federal Regulations
CIAA	Cumulative Impact Analysis Area
CSU	Conditional Surface Use
DR	Decision Record
EA	Environmental Assessment
EIS	Environmental Impact Statement
ENBB	Environmental Notification Bulletin Board
EOI	Expression of Interest
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act of 1976
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
IDPR	Interdisciplinary Parcel Review
IM	Instruction Memorandum
LUP	Land Use Plan

NAGPRA	Native American Graves Protection and Repatriation Act
NCLS	Notice of Competitive Lease Sale
NEPA	National Environmental Policy Act
NNL	National Natural Landmark
NHPA	National Historic Preservation Act
NPS	National Park Service
NSO	No Surface Occupancy
PFO RMP	Price Field Office Resource Management Plan
PLPCO	Public Land Policy Coordination Office
RMP	ROD Resource Management Plan Record of Decision
RMP	Resource Management Plan
RFD	Reasonably Foreseeable Development
ROD	Record of Decision
SHPO	State Historic Preservation Office
SITLA	School and Institutional Trust Lands Administration
UDWR	Utah Division of Wildlife Resources
USDI	United States Department of the Interior
USO	Utah State Office
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WO	Washington Office
WSA	Wilderness Study Area
WTP EIS	West Tavaputs Plateau Natural Gas Full Field Development Plan Environment Impact Statement
WTP EIS ROD	West Tavaputs Plateau Natural Gas Full Field Development Plan Environmental Impact Statement Record of Decision

Appendices

Appendix A. Preliminary Parcels Included in November 2014 Oil and Gas Lease Sale Analysis Lease Stipulations and Lease Notices

Appendix B. Maps

Appendix C. Interdisciplinary Team Checklist

Appendix D. Deferred Lands List

Appendix E. Comment Responses

Appendix F. Parcel Pictures, Parts 1 – 2

Appendix A - Preliminary Parcels Included in November 2014 Oil and Gas Lease Sale Analysis

UT1114 – 005
T. 12 S., R. 8 E., Salt Lake
Sec. 23: SESW, SWSE;
80.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 007
T. 12 S., R. 8 E., Salt Lake
Sec. 25: S2S2;
Sec. 26: W2NE, E2W2, W2SE, SESE;
Sec. 34: Lot 1, NESE;
Sec. 35: Lots 1-4, NE, NENW, S2NW, N2S2.
1205.64 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act

WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings

UT1114 – 009
T. 13 S., R. 8 E., Salt Lake
Sec. 1: Lots 1, 2, S2NE.
160.09 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 010
T. 13 S., R. 8 E., Salt Lake
Sec. 10: E2;
Sec. 11: W2NE, W2, SE;
Sec. 14: N2, N2SW, N2SWSW, SESW, SE;
Sec. 15: N2, SW, N2SE, SWSE, N2SESE;
Sec. 23: W2NENE, NWNE, E2NENW.
2,200.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
T&E-06: Mexican Spotted Owl

UT1114 – 011
T. 13 S., R. 8 E., Salt Lake
Sec. 13: N2, W2NESW, W2SW.
420.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings

T&E-06: Mexican Spotted Owl

UT1114 – 020
T. 13 S., R. 9 E., Salt Lake
Sec. 7: E2NE;
Sec. 17: SW, W2SE, SESE;
Sec. 18: E2E2, N2SWSE, SESWSE.
550.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings

UT1114 – 021
T. 13 S., R. 9 E., Salt Lake
Sec. 11: NE, SW, W2SE;
Sec. 12: NENE, SWNE, S2SE excluding RR ROW SL034773;
Sec. 13: NE excluding RR ROW SL034773;
Sec. 14: S2NE, NW, N2SW, SWSW excluding RR ROW SL026396, SE;
Sec. 15: NENE, S2NE, W2NW, SE excluding RR ROW SL026396.
1,600.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests

UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
T&E-06: Mexican Spotted Owl

UT1114 – 028
T. 14 S., R. 11 E., Salt Lake
Sec. 31: SESW.
40.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 029
T. 15 S., R. 11 E., Salt Lake
Sec. 23: W2E2, NW, N2SW, SESW;
Sec. 24: N2SW;
Sec. 25: W2 excluding RR ROW SL044215, SE;
Sec. 26: N2NE excluding RR ROW SL044215, SENE, NESE.
1,160.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)
UT-S-177: Controlled Surface Use – Fossil Resources
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 030
T. 13 S., R. 12 E., Salt Lake
Sec. 7: S2SE;
Secs. 18 and 19: All;
Sec. 20: S2.
1,694.09 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings

UT1114 – 031
T. 13 S., R. 12 E., Salt Lake
Sec. 21: S2NW, S2;
Sec. 22: S2S2;
Sec. 27: All.
1,200.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-305: Controlled Surface Use – Noxious Weed
UT-S-325: Timing Limitation – Raptor Nest Sites
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings

UT1114 – 032
T. 13 S., R. 12 E., Salt Lake
Sec. 25: NE, S2;
Sec. 26: All.
1,120.00 Acres
Carbon County Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent

UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings

UT1114 – 034
T. 16 S., R. 12 E., Salt Lake
Sec. 9: SWNW, W2SW.
120.00 Acres
Emery County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)
UT-S-177: Controlled Surface Use – Fossil Resources
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 035
T. 16 S., R. 12 E., Salt Lake
Sec. 11: SESE;

Sec. 12: S2SW excluding RR ROW SL044215;
Sec. 13: W2, SE, Excluding RR ROW SL044215;
Sec. 14: E2, E2SW.
1,000.00 Acres
Emery County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)
UT-S-177: Controlled Surface Use – Fossil Resources
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2005-003: Cultural Resources
WOIM 2002-174: Endangered Species Act

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 037
T. 13 S., R. 13 E., Salt Lake
Sec. 5: Lots 1-4, SESW, S2SE;
Sec. 6: All;
Sec. 7: Lots 1, 2, NE, E2NW;
Sec. 8: N2, SW, N2SE, SESE.
1536.43 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act

WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 038
T. 13 S., R. 13 E., Salt Lake
Sec. 19: Lot 4;
Sec. 30: Lots 1 and 2;
Sec. 33: SWNW.
184.91 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 040
T. 14 S., R. 13 E., Salt Lake
Sec 15: All.
640.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-305: Controlled Surface Use – Noxious Weed
UT-S-325: Timing Limitation – Raptor Nest Sites
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
T&E-06: Mexican Spotted Owl

UT1114 – 041
T. 14 S., R. 13 E., Salt Lake
Secs. 22 and 23: All.
1,281.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
T&E-06: Mexican Spotted Owl

UT1114 – 042
T. 14 S., R. 13 E., Salt Lake
Secs. 26 and 27: All.
1,280.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-156: Timing Limitation – High-Country Watershed Areas
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
T&E-06: Mexican Spotted Owl

UT1114 – 043
T. 15 S., R. 13 E., Salt Lake
Sec. 3: Lots 2-4, SWNE, S2NW, SW, NWSE;
Sec. 4: All;
Sec. 9: N2N2.
1,245.50 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent

UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 044
T. 15 S., R. 13 E., Salt Lake
Sec. 5: All;
Sec. 6: Lots 4-7, S2NE, E2SW, SE;
Sec. 7: Lots 1, 2, NE, E2NW;
Sec. 8: NENE, W2NW.
1,564.55 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-218: Controlled Surface Use – White-tailed Prairie Dog
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 045
T. 15 S., R. 13 E., Salt Lake
Sec. 10: Lots 1-4, SESW, SWSE, Excluding RR ROW SL063795;
Sec. 15: W2NE, SENE, W2, W2SE, SESE;

Sec. 21: All;
Sec. 22: E2, W2NW, SENW, SW.
1,961.12 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-126: No Surface Occupancy – Natural Springs
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 046
T. 15 S., R. 13 E., Salt Lake
Sec. 11: NESE, S2SE;
Sec. 12: SW, W2SE;
Sec. 13: All;
Sec. 14: N2NE, SENE, S2S2;
Sec. 23: All;
Sec. 24: W2.
2,240.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-218: Controlled Surface Use – White-tailed Prairie Dog
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-121: NSO – PL 97-98 – Prime Soils of Statewide Significance

UT1114 – 047
T. 15 S., R. 13 E., Salt Lake
Sec. 17: W2SW, S2SE;
Sec. 18: SE;
Sec. 19: Lots 2-4, E2, E2W2;
Sec. 20: All.
1,560.19 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-126: No Surface Occupancy – Natural Springs
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 048
T. 15 S., R. 13 E., Salt Lake
Secs. 27, 28, 33 and 34: All.
2,560.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-305: Controlled Surface Use – Noxious Weed
UT-S-325: Timing Limitation – Raptor Nest Sites
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 049
T. 15 S., R. 13 E., Salt Lake
Sec. 29: All;
Sec. 30: Lots 3, 4, E2, E2SW;
Sec. 31: All.
1,758.50 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-218: Controlled Surface Use – White-tailed Prairie Dog
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis

UT1114 – 054
T. 14 S., R. 14 E., Salt Lake
Sec. 13: Lot 1, NWSE;
Sec. 14: E2NE;
Sec. 24: NWNE, NWSW.
240.14 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
T&E-06: Mexican Spotted Owl

UT1114 – 055
T. 14 S., R. 14 E., Salt Lake
Sec. 4: Lot 4, SWNW, W2SW;
Sec. 5: Lots 1-4, SENE, SWNW, SW, N2SE, SWSE;
Sec. 6: Lot 6, NESW;
Sec. 7: Lots 3 and 4;
Sec. 8: All;
Sec. 17: N2NW, SWNW, N2SE;
Sec. 18: Lot 1, E2NW.
1,786.51 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-126: No Surface Occupancy – Natural Springs
UT-S-169: Controlled Surface Use – Cultural Resource Inventories

UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas
UT-S-253: Timing Limitation – Desert and Rocky Mountain Bighorn Sheep
UT-S-260: Timing Limitation – Raptor Habitat
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-285: Timing Limitation – Migratory Bird Nesting
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-56: Drinking Water Source Protection Zone
UT-LN-57: Public Water Reserve
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
T&E-06: Mexican Spotted Owl

UT1114 – 056
T. 15 S., R. 14 E., Salt Lake
Sec. 19: Lot 4, SESW;
Sec. 29: N2SW, SWSW;
Sec. 30: Lots 1-4, S2NE, E2W2, SE;
Sec. 31: All;
Sec. 32: NWNE, NENW, SESW.
1,518.98 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
UT-S-169: Controlled Surface Use – Cultural Resource Inventories
UT-S-253: Timing Limitation – Desert and Rocky Mountain Bighorn Sheep
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nests
UT-S-305: Controlled Surface Use – Noxious Weed
WOIM 2002-174: Endangered Species Act
WOIM 2005-003: Cultural Resources

LEASE NOTICES
UT-LN-17: Crucial Pronghorn Fawning Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
T&E-06: Mexican Spotted Owl

LEASE STIPULATIONS SUMMARY

WO IM 2005-003	**CULTURAL RESOURCES** This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.
WO IM 2002-174	**ENDANGERED SPECIES ACT** The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity until it completes its obligations under applicable requirements of the ESA as amended, 16 United States Code (USC) 1531 et seq. including completion of any required procedure for conference or consultation.
UT-S-01	AIR QUALITY All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NO_x per horsepower-hour. Exception: This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower. Modification: None Waiver: None AND All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO_x per horsepower-hour. Exception: None Modification: None Waiver: None

UT-S-97	NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40 PERCENT No surface occupancy on slopes greater than 40 percent. Exception: If after an environment analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the area may be authorized. In addition, a plan from the operator and BLM's approval of the plan shall be required before construction and maintenance could begin. The plan would have to include: An erosion control strategy GIS modeling Proper survey and design by a certified engineer. Modification: None Waiver: None
UT-S-101	CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 20-40 PERCENT In surface disturbing proposals regarding construction on slopes of 20 percent to 40 percent, include an approved erosion control strategy and topsoil segregation/restoration plan. Such construction must be properly surveyed and designed by a certified engineer and approved by the BLM prior to project implementation, construction, or maintenance. Exception: If after an environment analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the area may be authorized. In addition, a plan from the operator and BLM's approval of the plan would be required before construction and maintenance could begin. The plan must include: An erosion control strategy GIS modeling Proper survey and design by a certified engineer. Modification: Modifications also may be granted if a more detailed analysis is conducted and shows that impacts can be mitigated, e.g., Order I soil survey conducted by a qualified soil scientist, finds that surface disturbance activities could occur on slopes between 20 and 40 percent while adequately protecting areas from accelerated erosion. Waiver: None
UT-S-126	NO SURFACE OCCUPANCY – NATURAL SPRINGS No surface disturbance or occupancy will be maintained around natural springs to protect the water quality of the spring. The distance would be based on geophysical, riparian, and other factors necessary to protect the water quality of the springs. If these factors cannot be determined, a 660-foot buffer zone would be maintained. Exception: An exception could be authorized if (a) there are no practical alternatives, (b) impacts could be fully mitigated, or (c) the action is designed to enhance the riparian resources. Modification: None Waiver: None

UT-S-127	NO SURFACE OCCUPANCY – INTERMITTENT AND PERENNIAL STREAMS No new surface disturbance (excluding fence lines) will be allowed in areas within the 100-year floodplain or 100 meters (330 feet) on either side from the centerline, whichever is greater, along all perennial and intermittent streams, streams with perennial reaches, and riparian areas. Exception: The authorized officer could authorize an exception if it could be shown that the project as mitigated eliminated the need for the restriction. An exception could be authorized if (a) there are no practical alternatives, (b) impacts could be fully mitigated, or (c) the action is designed to enhance the riparian resources. Modification: None Waiver: None
UT-S-156	TIMING LIMITATION – HIGH-COUNTRY WATERSHED AREAS High-country watershed areas (above 7,000 feet) will be closed seasonally from December 1 to April 15. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic conditions if activities would not cause undue damage to soils or roads. Modification: Season may be adjusted depending on climatic and vegetation conditions. Waiver: Activities may be allowed as long as all surface disturbing activities are conducted before seasonal closure.

UT-S-169	CONTROLLED SURFACE USE – CULTURAL RESOURCE INVENTORIES Cultural resources inventories (including point, area, and linear features) will be required for all federal undertakings that could affect cultural resources or historic properties in areas of both direct and indirect impacts. Waiver of Inventory: Although complete Class III inventories will be performed for most land use actions, an authorized officer could waive inventory for any part of an Area of Potential Effect when one or more of the following conditions exist: Previous natural ground disturbance has modified the surface so extensively that the likelihood of finding cultural properties is negligible. (Note: This is not the same as being able to document that any existing sites may have been affected by surface disturbance; ground disturbance must have been so extensive as to reasonably preclude the location of any such sites.) Human activity within the last 50 years has created a new land surface to such an extent as to eradicate locatable traces of cultural properties. Existing Class II or equivalent inventory data are sufficient to indicate that the specific environmental situation did not support human occupation or use to a degree that would make further inventory information useful or meaningful. Previous inventories must have been conducted according to current professionally acceptable standards. Records are available and accurate and document the location, methods, and results of the inventory. Class II "equivalent inventory data" includes an adequate amount of acreage distributed across the same specific environmental situation that is located within the study area. Inventory at the Class III level has previously been performed, and records documenting the location, methods, and results of the inventory are available. Such inventories must have been conducted according to current professionally acceptable standards. Natural environmental characteristics (such as recent landslides or rock falls) are unfavorable to the presence of cultural properties. The nature of the proposed action is such that no impact can be expected on significant cultural resources. Conditions exist that could endanger the health or safety of personnel, such as the presence of hazardous materials, explosive ordnance, or unstable structures.
UT-S-176	CONTROLLED SURFACE USE – FOSSIL RESOURCES (PRECONSTRUCTION SURVEYS) Preconstruction paleo surveys will be required prior to any surface disturbing activity in the Morrison, Cedar Mountain, Blackhawk, North Horn, or Chinle Formations. Exception: The authorized officer may grant an exception if the area has previously been inventoried within the last three (3) years. Modification: None Waiver: None
UT-S-177	CONTROLLED SURFACE USE – FOSSIL RESOURCES A BLM permitted paleontologist will be required to be onsite during surface disturbance in any Potential Fossil Yield Classification (PFYC) 4 or 5 areas. Exceptions: None Modification: None Waiver: None

UT-S-218	CONTROLLED SURFACE USE – WHITE-TAILED PRAIRIE DOG No surface-disturbing activities within 660 feet of prairie dog colonies identified within prairie dog habitat. No permanent aboveground facilities are allowed within the 660 feet buffer. Exception: An exception may be granted by the authorized officer if the applicant submits a plan that indicates that impacts of the proposed action can be adequately mitigated or, if due to the size of the town, there is no reasonable location to develop a lease and avoid colonies the authorized officer will allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease. Modification: The authorized officer may modify the boundaries of the stipulation area if portions of the area does not include prairie dog habitat or *active* colonies are found outside current defined area, as determined by BLM. Waiver: May be granted if in the leasehold if it is determined that habitat no longer exists or has been destroyed.
UT-S-232	TIMING LIMITATION – MULE DEER AND ELK CRUCIAL WINTER RANGE No surface disturbing or otherwise disruptive activities within mule deer and elk crucial winter range from December 1 to April 15. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to deer and/or elk populations or habitats. Modification: Season may be adjusted depending on climatic and range conditions. Waiver: A waiver may be granted if the winter range habitat is unsuitable for or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.
UT-S-248	TIMING LIMITATION – MULE DEER FAWNING AND ELK CALVING AREAS No surface disturbing or otherwise disruptive activities within mule deer fawning and elk calving areas from May 15 to July 5. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to deer and elk populations or habitats. Modification: Season may be adjusted depending on climatic and range conditions. Waiver: A waiver may be granted if the fawning and calving habitat is unsuitable or unoccupied by deer/elk and there is no reasonable likelihood of future use.

UT-S-253	**TIMING LIMITATION – DESERT AND ROCKY MOUNTAIN BIGHORN SHEEP** No surface disturbing or otherwise disruptive activities within Desert bighorn sheep and Rocky Mountain bighorn sheep spring/lambing within crucial yearlong range from **April 15 to June 15**. **Exception:** Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to Desert bighorn sheep and Rocky Mountain bighorn sheep populations or habitats. **Modification:** Season may be adjusted depending on climatic and range conditions. **Waiver:** A waiver may be granted if the habitat is determined to be unsuitable for lambing and there is no reasonable likelihood of future use as bighorn lambing grounds.
UT-S-260	TIMING LIMITATION – RAPTOR HABITAT Raptor nesting complexes and known raptor nest sites will be closed seasonally from February 1 to July 15 within ½ mile of occupied nests. Exception: The authorized officer may grant an exception if the raptor nest in question is deemed to be inactive by May 31 and if the proposed activity would not result in a permanent structure or facility that would cause the subject nest to become unsuitable for nesting in future years. Modification: Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening. Waiver: This stipulation may be waived if, in cooperation with the UDWR, it is determined that the site has been permanently abandoned or unoccupied for a minimum of 3 years.
UT-S-269	NO SURFACE OCCUPANCY – MEXICAN SPOTTED OWL NESTS No surface occupancy within 1/2 mile of known Mexican Spotted Owl (MSO) nests. Exception: The authorized officers may grant an exception if an environmental analysis demonstrates that the action would not impair the function or utility of the site for nesting or other owl-sustaining activities. Modification: The authorized officers may modify the NSO area in extent if an environmental analysis finds that a portion of the area is nonessential to site utility or function or if natural features provide adequate visual or auditory screening. Waiver: A waiver may be granted if the MSO is de-listed and the area is determined as not necessary for the survival and recovery of the MSO.

UT-S-285	**TIMING LIMITATION – MIGRATORY BIRD NESTING** Migratory bird nesting areas will be closed seasonally from **April 15 to August 1**. Areas with migratory birds designated as BLM Special Status Species will have the highest priority. **Exception:** Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or habitat conditions if activities would not cause undue stress to migratory bird populations. **Modification:** Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening. **Waiver**: None
UT-S-305	CONTROLLED SURFACE USE – NOXIOUS WEED Continue implementation of noxious weed and invasive species control actions in accordance with national guidance and local weed management plans, in cooperation with State, federal, affected counties, adjoining private land owners, and other partners or interests directly affected. Implement Standard Operating Procedures and Mitigation Measures for herbicide use as well as prevention measures for noxious and invasive plants identified in the Record of Decision Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States PEIS and associated documents. Exception: None Modification: None Waiver: None
UT-S-325	**TIMING LIMITATION – RAPTOR NEST SITES** Restrict surface disturbing activities within ½ mile around special status raptor species nest sites during the following time periods: Mar 1–Aug 1: Ferruginous hawk Mar 1–Aug 15: N. Goshawk Restrict surface disturbing activities within ¼ mile around special status raptor species nest sites during the following time periods: Mar 1–Aug 1: Short-eared owl Mar 1–Aug 31: Burrowing owl **Exception**: An exception could be granted if surveys determine that nesting sites are not occupied. **Modification**: The Authorized Officer may modify the boundaries of the stipulation area if portions of the area do not include habitat or are outside the current defined area, as determined by the BLM. **Waiver**: A waiver may be granted if it is determined the habitat no longer exists or has been destroyed.

LEASE NOTICES SUMMARY

UT-LN-17	CRUCIAL PRONGHORN FAWNING HABITAT The Lessee/operator is given notice that lands in this lease have been identified as containing crucial antelope fawning habitat. Exploration, drilling, and other development activities may be restricted from April 15 through June 15 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.
UT-LN-44	RAPTORS Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if pre-construction monitoring indicates the nests are active, unless a site specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor. Any indication that activities are adversely affecting the raptor and/or its' young the on-site monitor will suspend activities and contact the BLM Authorized Officer immediately. Construction may occur within the buffers of inactive nests. Construction activities may commence once monitoring of the active nest site determines that fledglings have left the nest and are no longer dependent on the nest site. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.
UT-LN-45	MIGRATORY BIRD The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the authorized officer of the Bureau of Land Management. Based on the result of the field survey, the authorized officer will determine appropriate buffers and timing limitations.
UT-LN-49	UTAH SENSITIVE SPECIES The lessee/operator is given notice that no surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is also given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1-2.

UT-LN-51	SPECIAL STATUS PLANTS: NOT FEDERALLY LISTED The lessee/operator is given notice that lands in this lease have been identified as containing special status plants, not federally listed, and their habitats. Modifications to the Surface Use Plan of Operations may be required in order to protect the special status plants and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
UT-LN-56	DRINKING WATER SOURCE PROTECTION ZONE This lease (or a portion thereof) is within a public Drinking Water Source Protection zone. Before application for a permit to drill (APD) submittal or any proposed surface-disturbing activity, the lessee/operator must contact the public water system manager to determine any zoning ordinances, best management or pollution prevention measures, or physical controls that may be required within the protection zones. Drinking Water Source Protection plans are developed by the public water systems under the requirements of R309-600. Drinking Water Source Protection for Ground-Water Sources. (Utah Administrative Code). There may also be county ordinances in place to protect the source protection zones, as required by Section 19-4-113 of the Utah Code. Incorporated cities and towns may also protect their drinking water sources using Section 10-8-15 of the Utah Code. This part of the Code gives cities and towns the extraterritorial authority to enact ordinances to protect a source of drinking water ... "For 15 miles above the point from which it is taken and for a distance of 300 feet on each side of such stream..." Class I cities (greater than 100,000 population) are granted authority to protect their entire watersheds. Some public water sources qualify for monitoring waivers which reduce their monitoring requirements for pesticides and volatile organic chemicals (VOCs). Exploration, drilling, and production activities within Source Protection zone 3 could jeopardize these waivers, thus requiring increased monitoring. Contact the public water system to determine what effect your activities may have on their monitoring waivers. Please be aware of other State rules to protect surface and ground water: the Utah Division of Water Quality Rules R317 Water Quality Rules; and Rules of the Utah Division of Oil, Gas and Mining, Utah Oil and Gas Conservation Rules R649. At the time of development, drilling operators will additionally conform to the operational regulations in Onshore Oil & Gas Order No. 2 (which requires the protection and isolation of all usable quality waters, $\leq$ 10,000 mg/L Total Dissolved Solids), Onshore Oil and Gas Order No. 7 (which prescribes measures required for the handling of produced water to insure the protection of surface and ground water sources) and the Surface Operating Standards and Guidelines for Oil and Gas Development, The Gold Book, Fourth Edition-Revised 2007 (which provides information and requirements for conducting environmentally responsible oil and gas operations). Additional mitigation measures may be necessary to prevent adverse impacts from oil and gas exploration and development activities. Mitigation measures may include submitting an erosion control plan with best management practices (BMPs) that address rigorous interim reclamation which might include surface roughening, vegetative buffer strips, etc.; and sediment control through the use of sediment logs, silt fences, erosion control blankets, outlet/inlet protection of water control features such as culverts or diversion ditches, sediment traps, run on/run off pad design features. If project activities are close to sensitive areas or water sources a semi or closed-loop drilling system should be required.

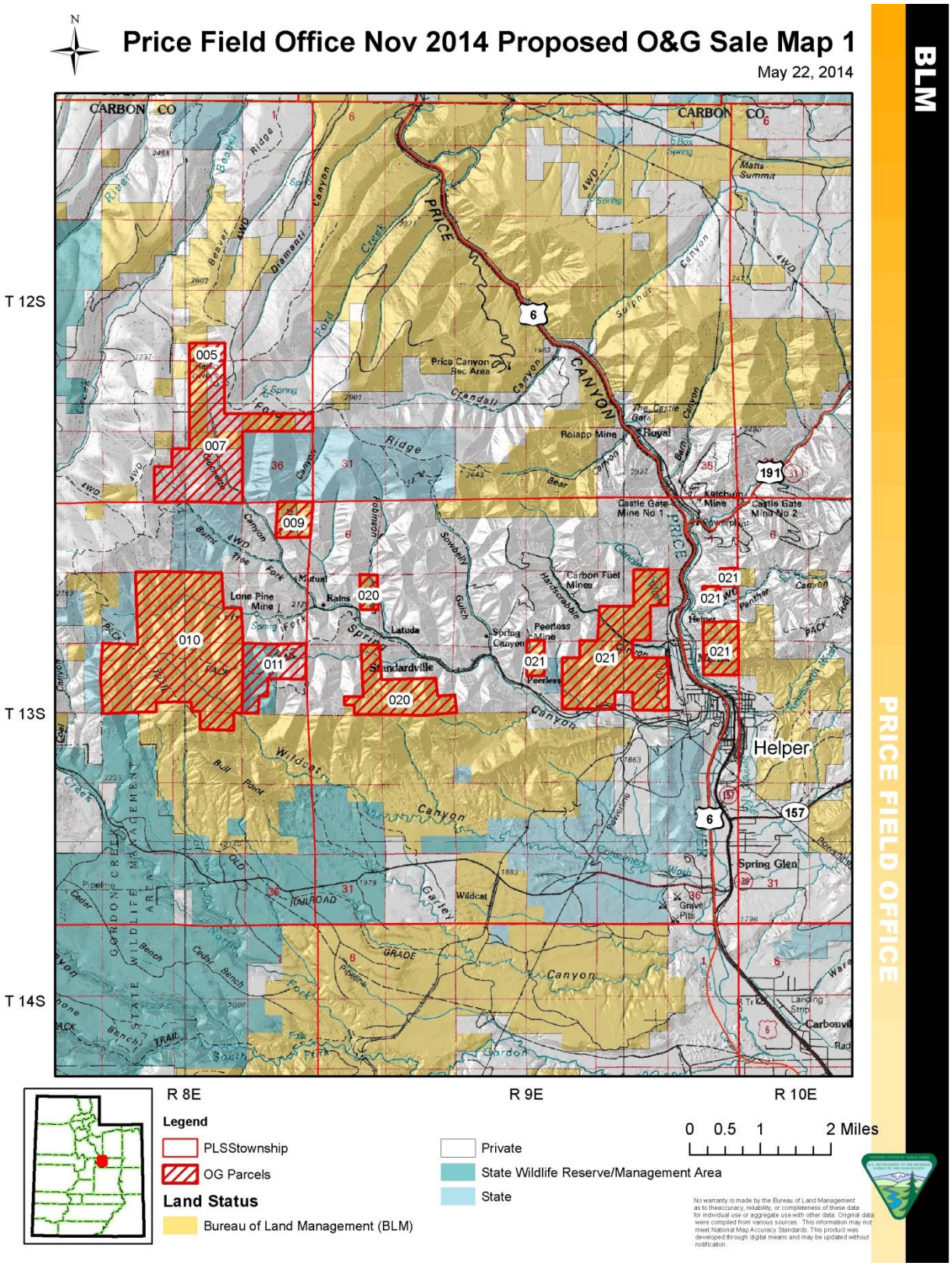
UT-LN-57	PUBLIC WATER RESERVE The lessee/operator is given notice that lands in this lease have been identified as a designated Public Water Reserve. Surface occupancy or use is subject to the Public Water Reserve Executive Order No. 107. Modification to the Surface Use Plan of Operations may be required for the protection of the reserve up to and including no surface occupancy or use. Protection of a designated public water reserve as discussed in Public Water Reserve Executive Order No. 107. This limitation does not apply to operations and maintenance of producing wells.
UT-LN-96	AIR QUALITY The lessee is given notice that the Bureau of Land Management (BLM) in coordination with the U.S. Environmental Protection Agency and the Utah Department of Air Quality, among others, have developed the following air quality mitigation measures that may be applied to any development proposed on this lease. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from oil and gas development (including but not limited to construction, drilling, and production). All internal combustion equipment would be kept in good working order. Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer. Open burning of garbage or refuse would not occur at well sites or other facilities. Drill rigs would be equipped with Tier II or better diesel engines. Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater. Low bleed pneumatics would be installed on separator dump valves and other controllers. The use of low bleed pneumatics would result in a lower emission of VOCs. During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible. Well site telemetry would be utilized as feasible for production operations. Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures will be developed and implemented in coordination with the U.S. Environmental Protection Agency, the Utah Department of Air Quality, and other agencies with expertise or jurisdiction as appropriate.
UT-LN-99	REGIONAL OZONE FORMATION CONTROLS To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following Best Management Practices (BMPs) would be required for any development projects: Tier II or better drilling rig engines Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300HP Low bleed or no bleed pneumatic pump valves Dehydrator VOC emission controls to +95% efficiency Tank VOC emission controls to +95% efficiency

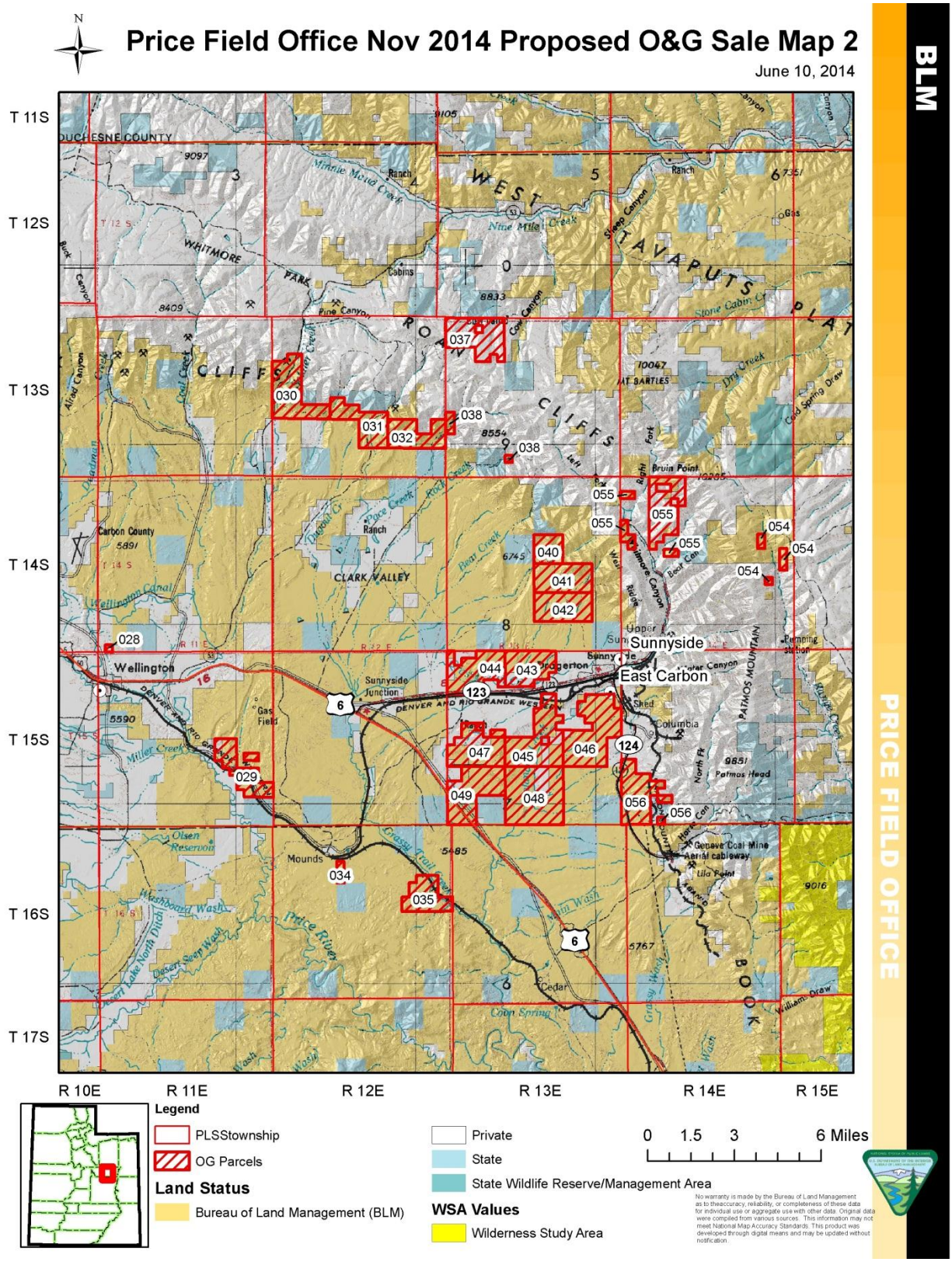
UT-LN-102	AIR QUALITY ANALYSIS The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.
UT-LN-120	ABANDONED MINE WORKINGS Abandoned Mine Working may be present in this lease parcel.
UT-LN-121	NSO – PL 97-98 – PRIME SOILS OF STATEWIDE SIGNIFICANCE These soil units are to be avoided, no surface occupancy until cleared by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS), as described in Public Law 97-98.

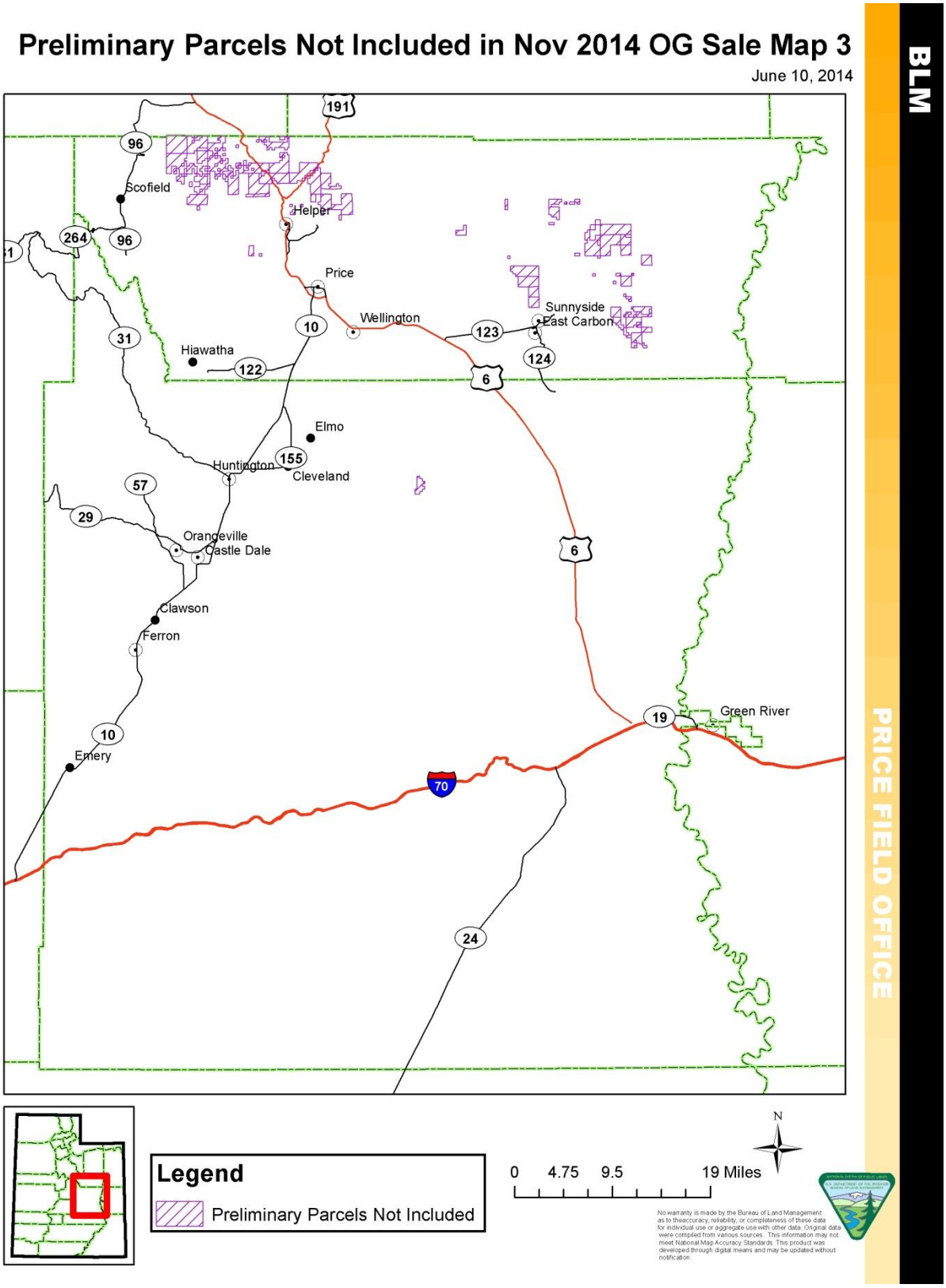
T&E-06	**MEXICAN SPOTTED OWL** The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for Mexican spotted owl, a federally listed species. The Lessee/Operator is given notice that the lands in this lease contain Designated Critical Habitat for the Mexican spotted owl, a federally listed species. Critical habitat was designated for the Mexican spotted owl on August 31, 2004 (69 FR 53181-53298). Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the owl nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of owl habitat or displaces owls through disturbances, i.e. creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s). 2. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat. a. Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat. b. Document if action is temporary or permanent. 3. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated. 4. Water production will be managed to ensure maintenance or enhancement of riparian habitat. 5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for Mexican spotted owl nesting. 6. For all temporary actions that may impact owls or suitable habitat: a. If the action occurs entirely outside of the owl breeding season (March 1 – August 31), and leaves no permanent structure or permanent habitat disturbance, action can proceed without an occupancy survey. b. If action will occur during a breeding season, survey for owls prior to commencing activity. If owls are found, activity must be delayed until outside of the breeding season. c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc.

	7. For all permanent actions that may impact owls or suitable habitat: a. Avoid drilling and permanent structures within 0.5 mi of suitable habitat unless surveyed and not occupied. b. Survey two consecutive years for owls according to accepted protocol prior to commencing activities. c. If owls are found, no actions will occur within 0.5 mile of identified nest site. If nest site is unknown, no activity will occur within the designated Protected Activity Center (PAC). d. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims. e. Limit disturbances to and within suitable habitat by staying on approved routes. f. Limit new access routes created by the project. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the Endangered Species Act.

Appendix B – Maps

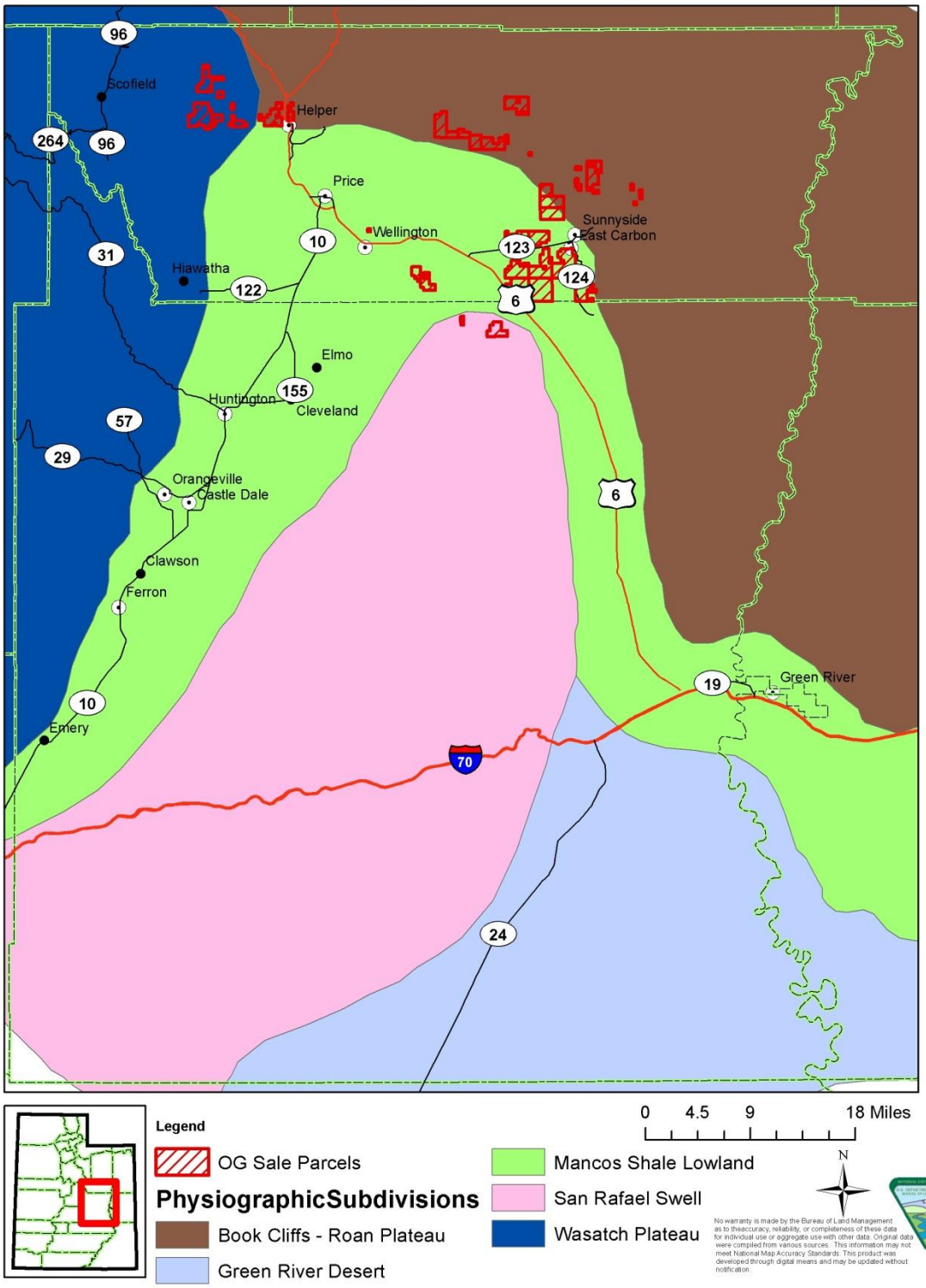

Price Field Office Nov 2014 Proposed O&G Sale Map 1
May 22, 2014
BLM
PRICE FIELD OFFICE
CARBON CO
T 12S
T 13S
T 14S
R 8E
R 9E
R 10E
005
007
009
010
011
020
021
Helper
Spring Glen
Price Canyon Rec Area
Castle Gate Mine No 1
Castle Gate Mine No 2
Lone Pine Mine
Peerless Mine
Carbon Fuel Mines
Standardville
Latuda
Rolapp Mine
Legend
PLSStownship
OG Parcels
Land Status
Bureau of Land Management (BLM)
Private
State Wildlife Reserve/Management Area
State
0 0.5 1 2 Miles
No warranty is made by the Bureau of Land Management as to theaccuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.


Price Field Office Nov 2014 Proposed O&G Sale Map 2
June 10, 2014
BLM
PRICE FIELD OFFICE
T 11S
T 12S
T 13S
T 14S
T 15S
T 16S
T 17S
R 10E
R 11E
R 12E
R 13E
R 14E
R 15E
Sunnyside
East Carbon
Wellington
Mounds
Cedar
CLARK VALLEY
WEST TAVAPUTS PLATEAU
CLIFFS
Legend
PLSStownship
OG Parcels
Land Status
Bureau of Land Management (BLM)
Private
State
State Wildlife Reserve/Management Area
WSA Values
Wilderness Study Area
0 1.5 3 6 Miles


Preliminary Parcels Not Included in Nov 2014 OG Sale Map 3
June 10, 2014
BLM
PRICE FIELD OFFICE
Scofield
Helper
Price
Wellington
Sunnyside
East Carbon
Hiawatha
Elmo
Huntington
Cleveland
Orangeville
Castle Dale
Clawson
Ferron
Emery
Green River
191
96
264
10
31
122
123
124
6
155
57
29
19
70
24
Legend
Preliminary Parcels Not Included
0 4.75 9.5 19 Miles
N
No warranty is made by the Bureau of Land Management as to theaccuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Nov 2014 O&G Sale Parcels: Physiographic Subdivisions Map 4

June 10, 2014



BLM

PRICE FIELD OFFICE

Appendix C – Interdisciplinary Team Checklist

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

Project Title: November 2014 Competitive Oil and Gas Lease Sale

NEPA Log Number: DOI-BLM-UT-G021-2014-029-EA

File/Serial Number: Not Applicable

Project Leaders: Don Stephens and Anita Jones

Determination of STAFF:

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form.

Determination	Resource	Rationale for Determination	Signature	Date
RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)				
PI	Air Quality	Emissions from earth-moving equipment, vehicle traffic, drilling and completion activities, separators, oil storage tanks, dehydration units, and daily tailpipe and fugitive dust emissions could adversely affect air quality. Application of Stipulation UT-S-01 and Lease Notices UT-LN-99 and UT-LN-102 is warranted for all parcels. No standards have been set by EPA or other regulatory agencies for greenhouse gases. In addition, the assessment of greenhouse gas emissions and climate change is still in its earliest stages of formulation. Global scientific models are inconsistent, and regional or local scientific models are lacking so that it is not technically feasible to determine the net impacts to climate due to greenhouse gas emissions. It is anticipated that greenhouse gas emissions associated with this action	Leonard Herr / Colin Schwartz	4/3/2014

Determination	Resource	Rationale for Determination	Signature	Date
		and its alternative(s) would be negligible. Application of stipulation UT-S-01 and lease notice UT-LN-99 is warranted.		
NI	Greenhouse Gas Emissions / Climate Change	In addition to the air quality information contained within the governing LUP, new information about greenhouse gases (GHGs) and their effects on national and global climate conditions has emerged since LUP was prepared. Without additional meteorological monitoring and modeling systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions; what is known is that increasing concentrations of GHGs are likely to accelerate the rate of climate change. Determining GHG emissions, their relationship to global climatic patterns, and the resulting impacts is an ongoing scientific process. The BLM does not have the ability to associate a BLM action's contribution to climate change with impacts in any particular area. The technology to be able to do so is not yet available. The inconsistency in results of scientific models used to predict climate change at the global scale coupled with the lack of scientific models designed to predict climate change on regional or local scales, limits the ability to quantify potential future impacts of decisions made at this level and determining the significance of any discrete amount of GHG emissions is beyond the limits of existing science. When further information on the impacts to climate change is known, such information would be incorporated into the BLM's planning and NEPA documents as appropriate. It is currently not feasible to know with certainty the net impacts from leasing and any potential exploration on climate. While BLM actions may contribute to the climate change phenomenon, the specific effects of those actions on global climate are speculative given the current state of the science. Leasing the subject parcels would have no direct	Leonard Herr / Colin Schwartz	4/3/2014

Determination	Resource	Rationale for Determination	Signature	Date
		impacts on climate as a result of GHG emissions. There is an assumption; however that leasing the parcels would lead to some type of exploration that would have indirect effects on global climate through GHG emissions. However, those effects on global climate change cannot be determined. It is unknown whether the petroleum resources specific to these parcels are gas or oil or a combination thereof. Since these types of data as well as other data are unavailable at this time, it is also unreasonable to quantify GHG emission levels.		
NP	Areas of Critical Environmental Concern (ACECs)	After review of GIS information and the approved RMP, there were no ACECs located within the project sites.	Josh Winkler	2/20/2014
NI	BLM Sensitive Animal Species	Ferruginous Hawks & Northern Goshawks have been observed and are known to occur within selected parcels. There are also documented observations and potential habitat for white-tailed prairie dogs and possibly burrowing owls within the parcels. Lease stipulations and notices should be added to those parcels to reduce any future project's impacts. Stipulation UT-S-218 is attached to parcels 044, 046, and 049 (White-tailed Prairie dogs). Stipulation UT-S-325 is attached to parcels 031, 040, and 048 (Ferruginous Hawks & Northern Goshawks). Lease Notice UT-LN-49 is attached to all parcels (BLM Sensitive Species). Leasing of the proposed parcels would not, by itself, authorize any ground disturbances. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. However, any development proposal on the lease parcels would be subject to the standard lease terms, the protective lease notices and stipulations identified above, and all applicable laws, regulations	Jared Reese	4/15/2014

Determination	Resource	Rationale for Determination	Signature	Date
		and onshore orders in existence at the time of lease issuance. Further, site-specific analysis would be required prior to the approval of any ground disturbance proposal on the parcels. In light of existing knowledge regarding animal species on the subject parcels, which is based upon the analysis in the 2008 Price ROD/RMP/FEIS, BLM PFO resource specialist knowledge and parcel site-visits, and the protective measure that would be applied to the parcels if leased, significant impacts beyond those already addressed in the 2008 Price ROD/RMP are not anticipated to occur as a result of leasing the proposed parcels.		
NI	Cultural Resources	A complete inventory of the proposed lease parcels has not occurred; however cultural resource sites have been identified within the parcels. Following a Class I Literature Review for each of the proposed parcels, and consideration of other general data including: the applicable Price Field Office Resource Management Plan (RMP) and associated Environmental Impact Statement (EIS); oil and gas activity NEPA documents; specific data relating to the individual proposed parcels such as topography and soils; as well as personal knowledge and experience of the lands at issue, it has been determined that reasonable development could occur without adverse impacts to known cultural properties eligible to the NRHP. The BLM PFO has determined that known cultural resources are located in such a fashion (size, density, and placement) that avoidance is feasible during the development of oil and gas resources. While the potential for locating additional cultural resources within the proposed lease parcels is unknown due to the low percentage of cultural resource survey conducted within all of the parcels, the Class I literature review suggests the potential for locating additional cultural resources within the proposed lease parcels is moderate. A complete inventory of the proposed lease parcels has not	Michael Wolfe	4/29/2014

Determination	Resource	Rationale for Determination	Signature	Date
		occurred; therefore, the following stipulation will be added to each lease parcel: "This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation act (NHPA), American Indian Religious Freedom Act, Native American Graves and Protection Act, E.O. 130007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated." Future project-specific Class III inventories will be required to identify significant historic properties and to plan for their avoidance or appropriate use through further review and consultation at the development stage; therefore the BLM PFO has determined that the proposed undertaking will have No Historic Properties Affected; eligible sites present but not affected as defined by 36 CFR 800.4. A letter requesting concurrence of the determination of effect was sent May 8, 2014 to the Deputy State Historic Preservation Officer of the Utah Division of State History. A letter of response with concurrence was sent to BLM PFO May 14, 2014 and received May 19, 2014. Application of stipulations UT-S-169 (cultural resources inventory) and WO IM 2005-003 is warranted for all parcels.		
NI	Environmental Justice	The ethnic composition and economic situation of residents of Carbon and Emery Counties indicate that no minority or low-income populations are experiencing disproportionately high or adverse	Don Stephens	4/17/2014

Determination	Resource	Rationale for Determination	Signature	Date
		effects from current management actions (RMP EIS). Leasing would not adversely or disproportionately affect minority, low income or disadvantaged groups.		
PI	Farmlands (Prime or Unique)	Parcels 021, 028, 029, 031, 032, 036, 040, 041, 043, 044, 045, 047, 048, and 049 contain soils that if irrigated can be considered as prime farmlands. Parcel 046 contains soils that are considered prime soils of statewide significance. These soil units are to be avoided, no surface occupancy until cleared by USDA NRCS as described in Public Law 97-98.	Jeffrey Brower	4/2/2014
NP	Floodplains	After review of USGS 7.5 min. maps of the project areas, no floodplain as defined by EO 11988, FEMA, or Corps of Engineers is found on or near the project area.	Jeffrey Brower	3/31/2014
NI	Invasive, Non-native Species (EO 13112)	Stipulation UT-S-305 is attached to all parcels (Noxious Weeds). Noxious weeds are present within all the parcels. Salt Cedar is the only noxious weed present within parcel 036. Black henbane, musk thistle, salt cedar (tamarisk), Russian olive (County listed noxious weed) & Russian knapweed are the noxious weeds of concern within the parcels. Halogeton, Russian thistle and cheatgrass are invasive species that occurs within all the parcels. Leasing will not have an impact to invasive species/noxious weeds at this time because no ground disturbance will occur. If development of the leased parcels occur then site specific analysis needs to be completed prior to ground disturbance.	Stephanie Bauer	4/1/2014
NP	Native American Religious Concerns	Consultation ongoing. Letters containing notification of this lease sale, location maps, and legal descriptions of the proposed parcels have been sent to the Tribes identified in Chapter 5.2 above. The letters detailed the leasing proposal and requested comments and concerns. Should future inventories or consultations with tribal authorities reveal the existence of sensitive	Michael Wolfe	8/14/2014

Determination	Resource	Rationale for Determination	Signature	Date
		properties, appropriate mitigation and/or protection measures may be undertaken.		
NP	Threatened, Endangered or Candidate Plant Species	After review of BLM records and site visits, there are no known populations or potential habitat within the proposed leased parcels.	Dana Truman	4/28/2014
NI	Threatened, Endangered or Proposed Animal Species	There is modeled potential habitat for Mexican Spotted Owls on some of the parcels, based upon Willey's 2000 GIS model. No other listed or proposed species would be expected to be potentially on these sites. Lease stipulations and notices should be added to those parcels to reduce any future project's impacts. Leasing of the proposed parcels would not, by itself, authorize any ground disturbances. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. However, any development proposal on the lease parcels would be subject to the standard lease terms, the protective lease notices and stipulations identified above, and all applicable laws, regulations and onshore orders in existence at the time of lease issuance. Further, site-specific analysis would be required prior to the approval of any ground disturbance proposal on the parcels. In light of existing knowledge regarding animal species on the subject parcels, which is based upon the analysis in the 2008 Price ROD/RMP/FEIS, BLM PFO resource specialist knowledge and parcel site-visits, and the protective measure that would be applied to the parcels if leased, significant impacts beyond those already addressed in the 2008 Price ROD/RMP are not anticipated to occur as a result of leasing the proposed parcels. Each lease would be issued with the mandatory WO IM-2002-174 endangered species act stipulation. Stipulation S-269 and Notice T&E-06 are applied to parcels 010, 011, 021, 040, 041, 042, 054, 055, 056, 087, 090, and 091 (MSO).	Jared Reese	4/15/2014

Determination	Resource	Rationale for Determination	Signature	Date
NI	ESA Candidate Animal Species	All of the preliminarily proposed parcels, or portions of the preliminary parcels, located within Greater Sage-grouse habitat or completely surrounded by Greater Sage-grouse habitat have been deferred until the BLM finalizes and issues a Record of Decision for the new Utah Greater Sage-grouse Management Plan, which is due out later this year (2014). By deferring the parcels until the new Greater Sage-grouse Management Plan is complete, BLM will be able to apply any protective measures, including any new stipulations, which the new Management Plan determines to be necessary to further protect and enhance sage-grouse habitat, when making a leasing decision on the subject parcels. Appendix D identifies those parcels (all or portions) that have been deferred for Greater Sage-grouse.	Jared Reese	4/16/2014
NI	Wastes (hazardous or solid)	No chemicals subject to reporting under SARA Title III will be used, produced, stored, transported, or disposed of annually in association with the project. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the project. Trash would be confined in a covered container and disposed of in an approved landfill. No burning of any waste will occur due to this project. Human waste will be disposed of in an appropriate manner in an approved sewage treatment center.	Jeffrey Brower	3/31/2014
PI	Water Quality (drinking / ground)	The lease parcels do not occur within any Sole Source Aquifers or Drinking Water Source Protection Zones (DWSPZs). However, parcel UT-1114-055 intersects a groundwater protection zone. UT-LN-56 (Drinking Water Source Protection Zone) and UT-LN-57 (Public Water Reserve) are applied to parcel UT-1114-055. The Grassy Trails Intake (GTI) is located on the west	Jeffrey Brower	3/31/2014

Determination	Resource	Rationale for Determination	Signature	Date
		side of the Grassy Trails Reservoir dam, at the headwaters of Trail Creek in Whitmore Canyon, within the southwestern block of parcel 55. Sunnyside and Carbon city use GTI as a surface water public water source (PWS). In the northeastern block is a BLM Public Water Reserve. In the western portion of the eastern block is East Carbon City's (ECC) consecutive connection (which is the Sunnyside city water system). Therefore, Lease Notices UT-LN-56 (DWSPZ) and UT-LN-57 (Public Water Reserve) should be applied to this lease parcel. Compliance with IM UT 2010-055 would be completed prior to APD approval. Maintenance and refueling of equipment could impact water quality. However, standard protocols would minimize possibility of releases. Drill holes will be cased to an elevation below 4000 feet MSL (Mean Sea Level) or when groundwater is encountered, casing shall be terminated at a level 100 feet below any encountered water bearing zone. No surface disturbance or occupancy would be allowed within 660 feet of any natural springs to protect the water quality of the spring. No new disturbance will be allowed in areas equal to the 100 year floodplain or 100 meters on either side of the center line of any stream, stream reach, or riparian area. At the time of development, drilling operators will conform to the provisions of the operational regulations and Onshore Oil & Gas Order Number 2, which requires the protection and isolation of all useable quality waters. High Country Watershed areas would be closed seasonally from December 1 to April 15 to surface disturbing activity at elevations above 7,000 feet. Lease Stipulations UT-S-126 and UT-S-127 are attached to all parcels containing natural springs, and floodplains, riparian areas, springs and public water reserves. Lease Stipulation UT-S-156 is applied to parcels with elevations above 7,000 feet (High Country Watershed).		

Determination	Resource	Rationale for Determination	Signature	Date
		All soils with high erosion potential need care to prevent accelerated erosion that could be transported to streams that are already listed on the 303d list. This will be accomplished by careful placement of drill pads and access routes. Regular maintenance on roads and pads in highly erosive soils will be required. <u>Parcels with stipulations</u>: Parcel 005: UT-S-97, UT-S-101, UT-S-156 Parcel 007: UT-S-97, UT-S-101, UT-S-156 Parcel 009: UT-S-97, UT-S-101, UT-S-156 Parcel 010: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 011: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 020: UT-S-97, UT-S-101, UT-S-156 Parcel 021: UT-S-101, UT-S-156 Parcel 028: UT-S-97, UT-S-101, UT-S-127 Parcel 029: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 030: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 031: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 032: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 034: UT-S-101, UT-S-127 Parcel 035: UT-S-97, UT-S-101, UT-S-127 Parcel 037: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 038: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 040: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 041: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 042: UT-S-97, UT-S-101, UT-S-127, UT-S-156 Parcel 043: UT-S-97, UT-S-101, UT-S-127 Parcel 044: UT-S-97, UT-S-101, UT-S-127 Parcel 045: UT-S-97, UT-S-101, UT-S-126, UT-S-127 Parcel 046: UT-S-97, UT-S-101, UT-S-127 Parcel 047: UT-S-97, UT-S-101, UT-S-126, UT-S-127 Parcel 048: UT-S-97, UT-S-101, UT-S-127 Parcel 049: UT-S-97, UT-S-101, UT-S-127 Parcel 054: UT-S-97, UT-S-101, UT-S-127 Parcel 055: UT-S-97, UT-S-101, UT-S-126, UT-LN-56, UT-LN-57 Parcel 056: UT-S-97, UT-S-101, UT-S-127		
PI	Hydrologic Conditions	The associated surface disturbance from oil and gas development on the proposed leases would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. The construction of well pads, roads and pipelines could interrupt surface runoff and create paths for concentrated surface flow.	Jeffrey Brower	3/31/2014

Determination	Resource	Rationale for Determination	Signature	Date
		Impacts to hydrologic conditions could increase sediment loading and associated dissolved solids into streams. As described in water quality above, application of Stipulations UT-S-126, UT-S-127, and UT-S-156 is warranted on all parcels with elevations greater than 7,000 feet in elevation. [see Water Quality (drinking / ground) for individual stipulations].		
PI	Wetlands / Riparian Zones	Some parcels contain streams, springs and seeps. Stipulations are listed in water quality section.	Jeffrey Brower	4/18/2014
NP	Wild and Scenic Rivers	There are no Wild and Scenic Rivers within this project area as per RMP/GIS review.	Matt Blocker	2/25/2014
NP	Wilderness & Wilderness Study Areas	There are no Wilderness/WSAs within this project area as per RMP/GIS review.	Matt Blocker	2/25/2014
NI	Rangeland Health Standards and Guidelines	Water quality, soils, vegetation, Threatened & Endangered Species habitat and other components of ecological conditions that are considered in Rangeland Health Standards and Guides have been analyzed in the Price RMP. Given the degree of anticipated exploration and development and application of standard operating procedures, best management practices and mitigation applied at the APD stage as conditions of approval it is concluded that Rangeland Health Standards would continue to be met.	Dana Truman	4/28/2014
NI	Livestock Grazing	Standard operating procedures, best management practices and site specific mitigation applied at the APD stage as conditions of approval will address livestock grazing resource issues not already analyzed in the Price RMP. Any range improvements such as fences and cattle-guards that would be affected would be replaced or repaired by the applicant. The applicant would replace any barriers to livestock that are removed	Dana Truman	4/28/2014

Determination	Resource	Rationale for Determination	Signature	Date
		through field development.		
NI	Woodland / Forestry	Standard operating procedures, best management practices and site specific mitigation applied at the APD stage as conditions of approval will address woodland and forest resources issues not already analyzed in the PFO Proposed RMP/Final EIS. Public wood gathering, Parcel 46 is within an public fuel wood harvest area. Leasing of the proposed parcels, by itself, does not authorize any ground disturbance. Any development proposal on the lease parcels would be subject to the standard lease terms, applicable laws, regulations and onshore orders in existence at the time of lease issuance and site specific analysis would be required prior to the approval of any ground disturbance. Considering the protective measure applicable to the parcels, significant impacts to public wood gathering areas beyond those already addressed in the 2008 Price ROD/RMP are not anticipated at this time. If development of the leased parcels occur then site specific analysis needs to be completed prior to ground disturbance.	Stephanie Bauer	4/1/2014
PI	Vegetation including Special Status Plant Species other than FWS candidate or listed species	Field visits were conducted on April 8 and 10 2014 to verify habitat suitability for federally listed and BLM sensitive plant species. Based on the review of records and site visits, two Utah BLM sensitive plant species are potentially present in the proposed lease parcels. No plant populations were located during the brief field visits, however potential habitat for these two species are present and Lease Notice UT-LN-51 is placed on the following: 021, 029, 030, 031, 032, 034, 035, 038, 040, 041, 042, 045, 046, 047, 048, 049, 055 and 056. Creutzfeldt flower (*Creutzfelt cryptantha*) is a Utah BLM sensitive plant species, endemic to Carbon and Emery counties. This member of the Borage family is a perennial herb. The plant produces white flowers. Known occurrences of the species are found growing	Dana Truman	4/28/2014

Determination	Resource	Rationale for Determination	Signature	Date
		in mancos shale in shadscale and mat saltbush communities. Based on appropriate geology and elevation and nearby known locations there is potential habitat in UT-1114: 021, 029, 030, 031, 032, 034, 035, 045, 046, 047, 048, and 049. Horse Canyon stickleaf (*Mentzelia multicaulis* var. *librina*) is a Utah BLM sensitive plant species. This member of the stickleaf family is a long lived, clump forming perennial herb. Known occurrence of the species is found growing in Sagebrush, rabbitbrush, and pinyon-juniper communities on Mancos and Price River formations. Based on appropriate geology and elevation and nearby known locations there is potential habitat in UT-1114:030, 0031, 032, 038, 040, 041, 042, 055, and 056. Standard operating procedures, best management practices and site specific mitigation applied at the APD stage as conditions of approval will adequately address vegetation.		
NI	Fish and Wildlife, excluding USFWS Listed Species and BLM Sensitive Species, e.g. Migratory birds	The lease parcels contain pinyon-juniper, high cliffs, cottonwoods, riparian, and sagebrush areas, which are important habitats for mule deer, elk, bighorn sheep, antelope, raptors, and migratory birds. The parcels are used as crucial wintering habitat for deer and elk, crucial year-long/summer habitat (fawning and calving) for elk and deer, and crucial year-long habitat for rocky mountain bighorn sheep and pronghorn antelope according to the maps prepared by UDWR. In addition, there are several raptor nest locations and migratory bird breeding habitats within selected parcels. Lease stipulations and notices should be added to those parcels to reduce any future project's impacts. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. Some of the parcels have known raptor nests. Lease Stipulation UT-S-232 is attached to parcels	Jared Reese	4/15/2014

Determination	Resource	Rationale for Determination	Signature	Date
		005, 007, 009, 010, 011, 020, 021, 030, 031, 032, 038, 040, 041, 042, 043, 046, and 087 (Elk and Deer Crucial Winter). Lease Stipulation UT-S-248 is attached to parcels 005, 007, 009, 010, 030, 031, 032, 037, 038, 040, 041, 042, 043, 054, 055, 087, 090, 091, and 092 (Elk and Deer Fawning and Calving Habitat). Lease Stipulation UT-S-253 is attached to parcels 055 and 056 (Desert and Rocky Mountain Bighorn Sheep Lambing Habitat). Stipulation UT-S-260 is attached to parcels 021, 029, 030, 031, 032, 038, 040, 041, 042, 047, 048, 049, and 055 (Raptor Nesting Locations). Lease Stipulation UT-S-285 is attached to parcels 005, 007, 009, 010, 011, 020, 029, 030, 032, 035, 037, 038, 043, 047, 054, 055, 087, 090, 091, and 092 (Migratory Bird Nesting Habitat). Lease Stipulation UT-LN-17 is attached to parcels 029, 034, 035, 036, 044, 045, 046, 047, 048, 049, and 056 (Pronghorn Fawning Habitat). Lease Notice UT-LN-44 is attached to all parcels (Raptors). Lease Notice UT-LN-45 is attached to all parcels (Migratory Birds).		
PI	Soils	SOPs, BMPs and site specific design features including reclamation would be applied at the APD stage as COAs. Leasing and exploration would have minimal impact to soil resources. Lease Stipulations UT-S-97 and UT-S-101 are applied to all parcels with slopes greater than 40%, and controlled surface use on slopes 20 – 40%. Many parcels include soils that have moderate to high erosion potential. Surface disturbance in these	Jeffrey Brower	3/31/2014

Determination	Resource	Rationale for Determination	Signature	Date
		soils could create increased soil erosion. Care in placement of drill pads and access routes is required. All surface disturbance will be approved by the Authorized Officer before work commences. Stipulations: Parcel 005: UT-S-97, UT-S-101 Parcel 007: UT-S-97, UT-S-101 Parcel 009: UT-S-97, UT-S-101 Parcel 010: UT-S-97, UT-S-101 Parcel 011: UT-S-97, UT-S-101 Parcel 020: UT-S-97, UT-S-101 Parcel 021: UT-S-101 Parcel 028: UT-S-97, UT-S-101 Parcel 029: UT-S-97, UT-S-101 Parcel 030: UT-S-97, UT-S-101 Parcel 031: UT-S-97, UT-S-101 Parcel 032: UT-S-97, UT-S-101 Parcel 034: UT-S-101 Parcel 035: UT-S-97, UT-S-101 Parcel 037: UT-S-97, UT-S-101 Parcel 038: UT-S-97, UT-S-101 Parcel 040: UT-S-97, UT-S-101 Parcel 041: UT-S-97, UT-S-101 Parcel 042: UT-S-97, UT-S-101 Parcel 043: UT-S-97, UT-S-101 Parcel 044: UT-S-97, UT-S-101 Parcel 045: UT-S-97, UT-S-101 Parcel 046: UT-S-97, UT-S-101 Parcel 047: UT-S-97, UT-S-101 Parcel 048: UT-S-97, UT-S-101 Parcel 049: UT-S-97, UT-S-101 Parcel 054: UT-S-97, UT-S-101 Parcel 055: UT-S-97, UT-S-101 Parcel 056: UT-S-97, UT-S-101		
NI	Recreation	The proposed action is in an area (Extensive Recreation Management Area) where recreation opportunities and problems are limited and explicit recreation management is not required. Minimal management actions related to the BLM's stewardship responsibilities are adequate in these areas. Implementation of the project would have minimal impact on dispersed recreation in the ERMA	Josh Winkler	3/20/2014

Determination	Resource	Rationale for Determination	Signature	Date
NI	Visual Resources	The Visual Resource Management (VRM) classes within the proposed action are found to be within a VRM class III and IV of the 29 proposed sites. Parcels 005, 007, 009, 010, 011, 020, 021, 029, 030, 031, 032, 035, 038, 040, 041, 042, 054, 055 and 056 are located within VRM III while parcels 029, 032, 034, 035, 038, 040, 041, 042, 043, 044, 045, 046, 047, 048 and 049 are in VRM IV. Parcels 028 and 037 are located on private property. The Visual Resource Management Class within the proposed action is within class III and IV, which allows for the level of change to the characteristic of the landscape to be moderate to high. The objectives are to provide for management activities which require moderate to major modification of the existing character of the landscape. Implementation of the proposed project will have an impact to the landscape but will not exceed the Visual Resource Management Class III or IV objectives.	Josh Winkler	3/20/2014
NI	Geology / Mineral Resources / Energy Production	The 2008 RMP FEIS adequately address the impacts of oil and gas leasing. Oil and gas exploration could lead to an increased understanding of the geologic setting, as subsurface data obtained through lease operations may become public record. This information promotes an understanding of mineral resources as well as geologic interpretation. While conflicts could arise between oil and gas operations and other mineral operations, these could generally be mitigated under the regulations 3101.1-2, where proposed oil and gas operations may be moved up to 200 meters or delayed by 60 days and also under the standard lease terms (Sec. 6) where sitting and design of facilities may be modified to protect other resources. Mineral claims were been checked on 4/15/14 and none were found associated with these lease parcels; however, claims that are present or staked prior to drilling activities can be	Don Stephens/ Chris Conrad	4/15/2014

Determination	Resource	Rationale for Determination	Signature	Date
		accommodated by the proposed action. Prior to ground disturbing activities a mining claim search should be conducted.		
NI	Paleontology	The Morrison and Cedar Mountain Formations, Potential Fossil Yield Classification System - Class 5 formations, have surface exposure on several of the proposed lease parcels. Class 5 formations are defined as geologic units that are highly fossiliferous and consistently and predictably produce vertebrate fossils. The PFO RMP ROD Management Decisions PAL-1 and PAL-4 for paleontologic resources requires that a BLM-permitted paleontologist be on site prior to and during any surface disturbing activities. This includes roads, pads, pump stations, pipelines, etc. A pre-work survey by a paleontologist will be necessary. Mitigation can be avoidance or excavation by BLM-permitted paleontologists. Stipulations UT-S-176 and UT-S-177 are therefore attached to parcels 029, 034 and 035.	Michael Leschin	3/10/2014
NI	Lands / Access	As described, the proposed action would not affect access to public land. Off-lease ancillary facilities that cross public land, if any, may require separate authorizations. Subsequent projects should coordinate with existing ROW holders and apply operating procedures and site specific mitigation at the APD stage that would ensure protection of existing rights.	Connie Leschin / Amanda Harrington	2/25/2014
NI	Fuels / Fire Management	The potential impacts would be analyzed on a site-specific basis at the APD stage prior to development. Fuels vary from lease to lease but generally consist of Ponderosa Pine, Pinyon Juniper, Sagebrush, small shrubs and forbs and grasses. Leasing of the proposed parcels would not, by itself, authorize any ground disturbances. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. However, any development proposal on the lease parcels would be subject to the standard lease terms, the protective lease notices and stipulations	Kevin Cahill	3/10/2014

Determination	Resource	Rationale for Determination	Signature	Date
		identified above, and all applicable laws, regulations and onshore orders in existence at the time of lease issuance. Further, site-specific analysis would be required prior to the approval of any ground disturbance proposal on the parcels. In light of existing knowledge regarding Fire/Fuels on the subject parcels, which is based upon the analysis in the 2008 Price ROD/RMP/FEIS, BLM PFO resource specialist knowledge and parcel site-visits, and the protective measure that would be applied to the parcels if leased, significant impacts beyond those already addressed in the 2008 Price ROD/RMP are not anticipated to occur as a result of leasing the proposed parcels.		
NI	Socio-economics	The nominated parcels are located in rural areas with no commercial and minimal residential development. No impacts to socio-economics are expected to occur as a result of the proposed action.	Don Stephens	2/10/2014
NP	Wild Horses and Burros	As per review of GIS and RMP maps, no parcels lie within Wild Horse or Burro Herd Management Area (HMA) Boundaries managed by the Price Field Office.	Mike Tweddell	4/7/2014
NP	BLM Natural Areas	There are no BLM Natural Areas within this project area as per RMP/GIS review.	Matt Blocker	2/25/2014
NI	Coal	The proposed action will not negatively affect coal resources. Parcels with oil/gas and coal conflicts were withdrawn from consideration in preference to coal production. Several proposed parcels are located above mined-out coal resources and companies and operators should consider the challenges when drilling in these areas. These parcels have been identified in the coal lease stipulations.	Chris Conrad	4/28/2014
PI	Non-WSA Lands with Wilderness	Approximately 767 acres within parcel 035 is located within a previously inventoried Non-WSA Lands with Wilderness Characteristics unit, which was determined to possess wilderness character. With the	Matt Blocker Don	2/25/2014 8/15/2014

Determination	Resource	Rationale for Determination	Signature	Date
	Characteristics	exception of parcel 035, lands with wilderness characteristics have not been identified in any of the proposed parcels. On-site visits to the proposed parcels in April 2014 verified existing knowledge regarding the resource conditions on the parcels.	Kranendonk	
NP	National Historic Trails	There are no BLM National Historic Trails within this project area as per RMP/GIS review.	Matt Blocker	2/25/2014

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
Environmental Coordinator	*/s/ Amy Adams*	*6/13/2014 draft* *8/15/2014 final*	
Authorized Officer	*/s/ Ahmed Mohsen*	*6/13/2014 draft* *8/15/2014 final*	

Appendix D – Deferred Lands List

Reasons for Deferral

UT1114 – 001 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Sec. 1: Lots 2, 3, N2SW, SESW, W2SE;
Sec. 11: N2, N2SW, W2SE, SESE;
Sec. 12: NW, NWSW, NWSE.
1,017.90 Acres
Carbon County, Utah
Price Field Office

UT1114 – 002 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Sec. 3: Lots 1, 2, NESW, S2SW, SE;
Sec. 4: Lots 1, 3, 4, SW, NWSE, SESE;
Sec. 9: N2, SW, N2SE, SWSE;
Sec. 10: N2.
1,594.93 Acres
Carbon County, Utah
Price Field Office

UT1114 – 003 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Secs. 5, 6, 7 and 8: All.
2,160.93 Acres
Carbon County, Utah
Price Field Office

UT1114 – 004 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Sec. 10: S2S2;
Sec. 15: N2, SW, NWSE;
Sec. 21: W2NE, SENE, NENW, S2NW, SW, E2SE;
Sec. 22: S2NE, NESW, W2SE, SESE.
1,400.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 005 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Sec. 13: NWNE, SWNW, N2SW, SWSW, NESE, S2SE;
Sec. 14: N2NE, SWNE, SENW, S2;
Sec. 23: W2NE, SENE, N2NW, SENW, N2S2, SESE;
Sec. 24: W2NE, NW, NESW, S2SW, N2SE.

1,680.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 006 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Sec. 17: N2, SW, W2SE, SESE;
Sec. 18: All;
Sec. 19: Lots 1-4, N2NE, E2W2, E2SE;
Sec. 20: NENE, S2NE, NW, E2SW, W2SE.
2,125.91 Acres
Carbon County, Utah
Price Field Office

UT1114 – 007 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Sec. 25: W2NE, SENE, NWNW, NESE;
Sec. 26: E2NE, W2W2;
Sec. 33: SENE, NESE;
Sec. 34: Lots 2-4, NE, NENW, S2NW, NWSW, NWSE;
Sec. 35: NWNW.
1,042.04 Acres
Carbon County, Utah
Price Field Office

UT1114 – 008 Greater Sage-grouse Habitat
T. 12 S., R. 8 E., Salt Lake
Sec. 27: NWNE, NWNW, S2N2, N2SW, SESW, SE;
Sec. 28: SENE, SESW, NESE;
Sec. 29: NENE, SWNE, NENW, S2NW, N2SW, W2SE;
Sec. 33: NENW.
1,040.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 009 Coal Resource Conflicts
T. 13 S., R. 8 E., Salt Lake Greater Sage-grouse Habitat
Sec. 3: All;
Sec. 4: Lots 1-3, S2N2, S2;
Sec. 10: W2NW.
1,319.60 Acres
Carbon County, Utah
Price Field Office

UT1114 – 012 Greater Sage-grouse Habitat

T. 12 S., R. 9 E., Salt Lake
Sec. 1: Lots 1-6, N2SW;
Sec. 3: Lots 1-4, N2S2, SESW, SESE;
Sec. 4: SESE;
Sec. 10: N2NE, SENE, NESE;
Sec. 11: N2, NESW;
Sec. 12: Lots 1, 2, W2NE, NW, NWSE.
1,357.09 Acres
Carbon County, Utah
Price Field Office

UT1114 – 013 Greater Sage-grouse Habitat
T. 12 S., R. 9 E., Salt Lake
Sec. 7: SENE.
40.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 014 Coal Resource Conflicts
T. 12 S., R. 9 E., Salt Lake Greater Sage-grouse Habitat
Sec. 13: Lots 2-4, W2E2, N2NW, SWNW, NESW, S2SW;
Secs. 23 and 24: All.
1,680.63 Acres
Carbon County, Utah
Price Field Office

UT1114 – 015 Coal Resource Conflicts
T. 12 S., R. 9 E., Salt Lake Greater Sage-grouse Habitat
Sec. 17: SWSE;
Sec. 20: NWNE, SENE, SENW, SW, S2SE;
Sec. 21: N2 excluding RR ROW SL034773, W2SW, SESW, SE;
Sec. 22: N2, N2S2, SWSW, Excluding RR ROW SL034773.
1,520.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 016 Coal Resource Conflicts
T. 12 S., R. 9 E., Salt Lake Greater Sage-grouse Habitat
Sec. 19: Lots 2, 3, E2NE, E2SW, SESE;
Sec. 20: NWNW;
Sec. 30: Lots 1-4, NENE, S2NE, NENW, E2SW, SE;
Sec. 31: All.
1,587.26 Acres
Carbon County, Utah
Price Field Office

UT1114 – 017 Coal Resource Conflicts
T. 12 S., R. 9 E., Salt Lake
Sec. 25: All;
Sec. 26: N2 excluding RR ROW SL034773, W2SW, N2SE, SESE;
Sec. 27: NE excluding RR ROW SL034773, W2NW, SENW, S2.
1,721.16 Acres
Carbon County, Utah
Price Field Office

UT1114 – 018 Coal Resource Conflicts
T. 12 S., R. 9 E., Salt Lake
Secs. 28, 33 and 34: All.
1,934.56 Acres
Carbon County, Utah
Price Field Office

UT1114 – 019 Coal Resource Conflicts
T. 13 S., R. 9 E., Salt Lake
Sec. 3: Lots 1-4;
Sec. 4: Lots 1-4;
Sec. 5: Lot 1.
363.75 Acres
Carbon County, Utah
Price Field Office

UT1114 – 022 Greater Sage-grouse Habitat
T. 13 S., R. 9 E., Salt Lake
Sec. 33: W2 excluding RR ROW SL015794;
Sec. 34: SWSW.
360.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 023 Coal Resource Conflicts
T. 12 S., R. 10 E., Salt Lake Greater Sage-grouse Habitat
Sec. 20: All;
Sec. 21: W2NE, NW, N2SW;
Sec. 29: NWNE, NW, NWSW;
Sec. 30: Lots 1-4, NE, E2W2, N2SE, SWSE.
1,778.24 Acres
Carbon County, Utah
Price Field Office

UT1114 – 024 Coal Resource Conflicts

T. 12 S., R. 10 E., Salt Lake
Sec. 21: NESE, S2SE;
Sec. 28: NE, NENW, S2NW, S2;
Sec. 29: E2SE;
Sec. 33: All.
1,440.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 025
T. 12 S., R. 10 E., Salt Lake
Sec. 27: All;
Sec. 34: W2NE, SENE, NW;
Sec. 35: NWNE, S2N2.
1,120.00 Acres
Carbon County, Utah
Price Field Office

Coal Resource Conflicts
Greater Sage-grouse Habitat

UT1114 – 026
T. 13 S., R. 10 E., Salt Lake
Sec. 1: All;
Sec. 11: N2;
Sec. 12: All;
Sec. 14: E2NE.
1,751.64 Acres
Carbon County, Utah
Price Field Office

Coal Resource Conflicts
Greater Sage-grouse Habitat

UT1114 – 027
T. 13 S., R. 10 E., Salt Lake
Sec. 3: All;
Sec. 4: Lots 3, 4, S2NW, N2SW, SESE;
Sec. 7: Lots 4, 11, E2SW;
Sec. 8: Lot 4;
Sec. 10: N2, W2SW.
1,521.31 Acres
Carbon County, Utah
Price Field Office

Coal Resource Conflicts
Greater Sage-grouse Habitat

UT1114 – 032
T. 13 S., R. 12 E., Salt Lake
Sec. 23: E2NE, S2.
400.00 Acres
Carbon County, Utah
Price Field Office

Coal Resource Conflicts

UT1114 – 036 Further Analysis Needed
T. 17 S., R. 12 E., Salt Lake
Sec. 19: Lots 4, 5, 8, E2SW, SWSE;
Sec. 30: Lots 1, 4-8, SWNE, E2NW, NESW.
620.15 Acres
Emery County, Utah
Price Field Office

UT1114 – 037 Greater Sage-grouse Habitat
T. 13 S., R. 13 E., Salt Lake
Sec. 4: Lot 1, SESE;
Sec. 9: E2NE.
159.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 039 Coal Resource Conflicts
T. 14 S., R. 13 E., Salt Lake
Sec. 3: Lot 4;
Sec. 10: NE, E2NW, N2SE, SESE;
Secs. 11 and 12: All.
1,699.05 Acres
Carbon County, Utah
Price Field Office

UT1114 – 040 Coal Resource Conflicts
T. 14 S., R. 13 E., Salt Lake
Secs. 13 and 14: All.
1,280.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 041 Coal Resource Conflicts
T. 14 S., R. 13 E., Salt Lake
Sec. 24: All.
640.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 042 Coal Resource Conflicts
T. 14 S., R. 13 E., Salt Lake
Sec. 25: All.
644.08 Acres
Carbon County, Utah

Price Field Office

UT1114 – 052 Greater Sage-grouse Habitat
T. 13 S., R. 14 E., Salt Lake
Sec. 3: Lots 1, 2, S2SW, SESE;
Sec. 4: Lot 4, SWSE;
Sec. 5: All;
Sec. 8: NWNW, S2N2, S2;
Sec. 17: N2NE, SENE, NENW, S2SW.
1,357.46 Acres
Carbon County, Utah
Price Field Office

UT1114 – 053 Greater Sage-grouse Habitat
T. 13 S., R. 14 E., Salt Lake
Sec. 13: SE;
Sec. 23: NESE, S2SE;
Sec. 24: NW;
Sec. 25: NE, SW, W2SE;
Sec. 26: NE, NESE, S2SE;
Sec. 34: S2SE;
Sec. 35: E2;
Sec. 36: All.
2,160.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 054 Greater Sage-grouse Habitat
T. 14 S., R. 14 E., Salt Lake
Sec. 1: Lot 1;
Sec. 12: SESW.
80.01 Acres
Carbon County, Utah
Price Field Office

UT1114 – 086 Greater Sage-grouse Habitat
T. 13 S., R. 15 E., Salt Lake
Secs. 19, 20 and 21: All.
1,894.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 087 Greater Sage-grouse Habitat
T. 13 S., R. 15 E., Salt Lake
Secs. 28 and 33: All.

1,283.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 088 Greater Sage-grouse Habitat
T. 13 S., R. 15 E., Salt Lake
Secs. 29, 30 and 31: All.
1,916.58 Acres
Carbon County, Utah
Price Field Office

UT1114 – 089 Greater Sage-grouse Habitat
T. 14 S., R. 15 E., Salt Lake
Sec. 2: All;
Sec. 8: S2SE;
Sec. 10: SWSW;
Sec. 16: All;
Sec. 17: NESW.
1,438.40 Acres
Carbon County, Utah
Price Field Office

UT1114 – 090 Greater Sage-grouse Habitat
T. 14 S., R. 15 E., Salt Lake
Sec. 21: SESW;
Sec. 28: N2NE, SENE;
Sec. 32: All;
Sec. 33: SESW, N2SE, SWSE;
Sec. 34: N2, N2NW, SENW, SESW;
Sec. 35: All.
2,080.00 Acres
Carbon County, Utah
Price Field Office

UT1114 – 091 Greater Sage-grouse Habitat
T. 15 S., R. 15 E., Salt Lake
Sec. 3: Lots 1-4, S2N2, N2SW, SE;
Sec. 4: Lots 1, 2, S2NE, SWSW, SE;
Sec. 5: Lots 1-3, S2NE, SENW, N2SE, SESE;
Sec. 9: N2NW, SENW, NESW, W2SE, SESE.
1,606.15 Acres
Carbon County, Utah
Price Field Office

UT1114 – 092 Greater Sage-grouse Habitat

T. 15 S., R. 15 E., Salt Lake
Sec. 10: S2;
Sec. 11: N2;
Sec. 14: NWSW, E2SWSW, SESW;
Sec. 15: NE, N2NW, SWNW, SW, N2NESE.
1,200.00 Acres
Carbon County, Utah
Price Field Office

APPENDIX E, COMMENTS AND RESPONSES

Copies of the comment letters are available at the Price Field Office for review.

SUWA Comment 1: "The BLM should remove lease parcels UT-1114-034 and 035 because they are in/near identified riparian areas……Moreover, EO 11990 requires that each agency "consider factors relevant to a proposal's effect on and the survival and quality of the wetlands…. None of these factors were considered in the EA**…..** BLM states that surface disturbance will not be authorized within one hundred meters on either side of a steam or riparian area…..However, no data or analysis is provided to demonstrate that this small buffer is sufficient to prevent adverse environmental consequences…… The EA should require mandatory NSO stipulations which cannot be modified: otherwise, the lease parcels should be removed from the upcoming lease sale."

BLM Response to Comment 1: *The Price Field Office Environmental Impact Statement (EIS) that was prepared and finalized in 2008 analyzed the final management decisions set forth in the Price Resource Management Plan (RMP). The Price RMP Management Decision WAT-1 states that wetlands and riparian areas would be managed as prescribed in Executive Order (EO) 11990. As part of the analysis, the EIS considered Executive Order (EO) 11990 by analyzing factors relevant to the effect of the proposed action and alternatives for the Price RMP on the survival and quality of the wetlands. Based on the analysis in the EIS, the Price RMP includes Management Decision WAT-8 which requires 100 meters as a minimum buffer on either side from the centerline along all perennial and intermittent streams, streams with perennial reaches, and riparian areas. This is considered adequate to protect riparian resources and no degradation to riparian areas is anticipated. Based on Price Field Office past experience 100 meters has been sufficient to protect riparian resources.*

SUWA Comment 2: "The EA also failed to analyze or disclose whether the leasing of parcels UT-114-034 and 035 will deplete water levels to such an extent that established minimum water requirements cannot be met."

BLM Response to Comment 2: *BLM protects water resources by the casing and cementing programs which are required by BLM regulations. The applications to permit to drill (APD) are reviewed by BLM petroleum engineers and geologists to assure that they meet BLM regulations and standards. Water resources will be analyzed on a case by case basis as required by Onshore Oil & Gas Order No. 2 and UT 2010-055. All potable water will be protected. Therefore established minimum water requirements will be met.*

SUWA Comment 3: "BLM has failed "to make a reasonable and good faith effort" to identify cultural resources that may be affected by this undertaking…..BLM also failed to take a hard look at the project's effects to cultural resources, as required by NEPA….BLM acknowledges that "a complete inventory of the proposed lease parcels has not occurred"….cultural resource

sites have been identified within the parcels….BLM does not discuss the extent and nature of these sites or why additional inventories were not conducted….the EA doses not disclose the area of potential effects…..or what type of direct or indirect effects oil and gas development may have to the cultural sites….does not comply with NEPA's hard look mandate. Nor does the EA comply with BLM Manual 8110 which details the necessary steps the agency must take to identify cultural resources that may be affected by an undertaking. See BLM Manual 8110.12.B….: "BLM's position…there will be "no historic properties affected" by this undertaking citing to stipulation UT-S-169....SUWA maintains that even with this stipulation the sale of non-no surface occupancy leases *may* result in adverse effects…..Because BLM admits that it may allow subsequent undertakings to proceed if adverse effects are "minimized," or 'mitigated," BLM's "no historic properties affected' determination is without support."

BLM Response to Comment 3**:** *The Area of Potential Effect (APE) for the proposed 2014 Lease Sale is defined by each parcels geographic boundary. A Class I Cultural Resources Literature Review was conducted to determine the likely nature and extent of cultural resources located within the proposed APE. The Bureau of Land Management (BLM) Price Field Office (PFO) consulted with the Utah State Historic Preservation Office (USHPO) and interested Tribes to determine if undocumented historic properties or sites of religious and cultural significance were located within the APE. The BLM requested concurrence from SHPO in a "determination of no historic properties affected" as a result of the BLM and SHPO State Protocol Agreement, the BLM approved RMP, and the BLM 8100 Manual Series, in addition to other Federal guidance documents.*

Land disturbing activities are not associated with the leasing of parcels, and a leased parcel may or may not be developed in the future. Based on the available archaeological data, the BLM PFO determined that there would be no historic properties eligible to the NRHP affected by the Federal undertaking of leasing.

The BLM would require additional information about the nature and extent of archaeological resources located within the APE to determine effects to cultural resources in the event that ground disturbance was imminent. Where there is no ground disturbance associated with this undertaking, the BLM would not require an Intensive Pedestrian Inventory for the APE at this time.

SUWA Comment 4: "SHPO's concurrence does not excuse BLM from complying with its obligations under NHPA….There is nothing in the NHPA or Section 106 that excuses the BLM's failure to comply with the other procedures based on a concurrence from SHPO."

BLM Response to Comment 4*: The BLM has met its obligations pursuant to 36 CFR 800.*

SUWA Comment 5: "The EA failed to take a hard look at the direct, indirect, and cumulative effects of leasing parcels in lands with wilderness characteristics..... BLM must consider lands with wilderness characteristics in during the NEPA planning process."

***BLM Response to Comment 5*:** *BLM took a hard look at the direct and indirect cumulative effects on lands with wilderness characteristics during the land use planning process. The Price Field Office 2008 Resource Management Plan Record of Decision (RMP-ROD) decision for Non-WSA lands with Wilderness Characteristics states that five areas with wilderness characteristics will be managed for their wilderness attributes. As stated in the RMP-ROD, areas with wilderness characteristics outside of these five areas could be developed for other uses, such as oil and gas production. None of the proposed leases are within areas that the Price RMP protects for their wilderness attributes.*

SUWA Comment 6: "When BLM is engaged in the NEPA process – as it is here - it must [u]pdate and maintain the wilderness inventory for lands within the planning area consistent with BLM wilderness characteristics inventory guidance…BLM must also [e]nsure that wilderness characteristics inventories ae considered…lands with wilderness characteristics are protected in a manner consistent with this manual in BLM planning processes…BLM has yet to review the lands in the Wilderness Character Submissions in compliance with Manual 6310 or 6320. These areas must be inventoried (or re-inventoried) prior to offering any lease parcels that fall within their boundaries in the November 2014 lease sale….. BLM has not inventoried either UT-1114-034 or 035 in compliance with Manual 6310……SUWA has therefore identified wilderness characteristics as an issue during the NEPA process and the proposed lease sale will impact those resources. BLM must inventory UT-1114-034 and 035 in compliance with Manual 6310, "as soon as practicable."

***BLM Response to Comment 6*:** *In April 2014, the PFO IDT conducted on-site visits to the November 2014 proposed lease parcels, including parcels 034 and 035, in order to validate existing data and gather new information in order to make an informed leasing recommendation. Parcel #034 is excluded from the lands with wilderness characteristics because of size limitations. During the on-site visit to parcel #034, BLM verified existing knowledge regarding resource conditions on the land and new information that might warrant a change to the wilderness character determination for parcel #034 was not observed. A 2002 inventory identified lands with wilderness characteristics within parcel #035. Based upon the 2002 wilderness characteristics inventory and the April 2014 on-site visit we determined that this area still possesses wilderness characteristics but according to the PFO RMP the land will not be managed for these characteristics. Potential impacts to wilderness characteristics are discussed in Chapters 3 and 4 of this EA.*

SUWA Comment 7: "BLM should take into consideration Secretarial Order 3310 and avoid impacts to lands with wilderness characteristics."

BLM Response to Comment 7*: *While the BLM no longer implements Secretarial Order 3310 pursuant to the Consolidated Appropriation Act of 2014 (PL 113-76), the BLM avoids impacts to lands with wilderness characteristics consistent with the 2008 RMP and BLM Manual 6310.

SUWA Comment 8: "The BLM should defer the leasing of parcels 34 and 35 to serve as mitigation for oil and gas development taking place elsewhere."

BLM Response to Comment 8*: *The Price Field Office 2008 Resource Management Plan Record of Decision (RMP-ROD) decision for Non-WSA lands with Wilderness Characteristics states that five areas with wilderness characteristics will be managed for their wilderness attributes. As stated in the RMP-ROD, areas with wilderness characteristics outside of these five areas could be developed for other uses, such as oil and gas production. Neither of the two proposed lease parcels is within areas that the Price RMP protects for their wilderness attributes. In addition, mitigation is currently in place for other oil and gas developments taking place within the Price Field Office.

SUWA Comment 9: "The BLM must consider the social cost of carbon that will result from the development and operation of the wells likely to be developed on these leases…. Consider this cost in context of the cumulative carbon emissions from oil and gas development in the Uinta Basin as a whole. The EPA has developed a formula for calculating what it refers to as the "social cost of carbon" for estimating potential costs and benefits of decisions increasing or decreasing carbon. EPA, The Social Cost of Carbon (Nov. 26, 2013)…"

***BLM Response to Comment 9:** The referenced website states "EPA and other federal agencies use the social cost of carbon (SCC) to estimate the climate benefits of rulemaking." The proposed action is not a rule making and therefore applying the tool is inappropriate in this case.*

State of Utah Comment 10: "The State has developed and is implementing a comprehensive Conservation Plan for Greater Sage-grouse in Utah. The plan established eleven Sage-grouse Management Areas (SGMAs) in Utah as focal points for conservation efforts. The state's Conservation Plan requests BLM follow its provisions for the conservation of sage-grouse within the SGMAs based upon the biological principle of avoid, minimize, and mitigate disturbance. Sale ID parcels 001-010, 012-016, 023-027, 031, 032, 037, 127, 128, 129, 138-148, and 158 are found partially or wholly within these SGMAs. The state requests the BLM make its decisions based upon the provisions of the state Conservation Plan, in coordination with the state."

BLM Response to Comment 10: As discussed in Chapter 2 of this EA, the BLM has coordinated with the UDWR in analyzing the proposed parcels and all areas mapped as occupied habitat for greater sage-grouse have been deferred from the November 2014 lease sale. In April 2014, staff from the BLM PFO and UDWR conducted on-site visits to all of the proposed parcels and during

these visits the absence of greater sage-grouse and greater sage-grouse habitat on the parcels was verified.

In developing the "Conservation Plan for Greater Sage-grouse in Utah" (2013 UDWR Sage-grouse Plan), the Utah Division of Wildlife Resources (UDWR) identified large, land-scape level regions of the state known as "Sage Grouse Management Areas" (SGMAs) where it would focus its greater sage-grouse conservation planning efforts. The lands within these large SGMAs were classified as either habitat, non-habitat or opportunity areas for greater sage-grouse. The 2013 UDWR Sage-grouse Plan defines "non-habitat" as "areas within SGMAs that currently do not contribute to the life-cycle of sage-grouse" and it defines "opportunity areas" as "those portions of a SGMA that currently do not contribute to the life-cycle of sage-grouse" where factors such as wildfire or the proliferation of invasive plant species have rendered the land "less useful or useless as habitat" but these areas "may be transformed in to either habitat or non-habitat based upon natural events or management choices." 2013 UDWR Sage-grouse Plan at 8-9. In other words, not all areas within the SGMAs constitute sage-grouse habitat. There are no areas considered to be valuable habitat for sage-grouse within the proposed parcels.

State of Utah Comment Greater Sage-grouse 11: "Existing leks are found within or adjacent to the following Sale ID parcels: 12, 51, 52, 53, 86, 87, 88, 89, 90, 108, 113, 127, 129-131, 138-162, 164, 166, 169, 170-173, 207, 238, 239 and 246-248. UDWR recommends that these sites be avoided to reduce any potential for disturbance to the birds. If disturbance is unavoidable then permanent disturbance should be minimized. UDWR recommends a seasonal, two-mile buffer zone around leks for any construction and disturbance during the period from February 15 to May 15. Sage-grouse nesting occurs within Sale ID parcels 108, 113, 115, 127-131, 138-150, 158-161, 170, 172, 207-209, 211, 238-244, and 246-248. Sage-grouse brood-rearing habitat occurs within parcels 51, 107-115, 119, 120, 122, 126, 127-131, 138-150, 160-162, 170-173, 207-214, 238-244, 246-248, and 179. Sage-grouse winter habitat falls within parcels 51, 108, 111, 113, 115, 120, 127-131, 138-150, 156-162, 170, 172, 207-214, 238-244, and 246-248. See the state's Conservation Plan for Greater Sage-grouse to determine the best management response to operations in the area."

BLM Response to Comment 11*: *All parcels located within two miles of a lek within the Price Field Office have been removed.

State of Utah Comment Mule Deer 12: "Crucial mule deer summer and fawning habitat falls within Sale ID parcels 009, 012, 014, 015, 017, 023-027, 037- 040, 052- 055, 086-092, 120, 126, 132, 134, 135, 137, 153, 160, 162, 163, 164, 174, 176, 177, and 212-214. UDWR recommends no construction, drilling or completion activities from May 15 to July 5 within these areas. Crucial mule deer winter habitat falls within Sale ID Parcels 001-011, 013-022, 028, 030-033, 038, 040-049, 052-053, 056, 086-090, 155-157, 169, 217, 218, 246, 247, 248, and 254. Winter causes increased stress and physical demands on deer. Human disturbance during winter can add

additional stress and possibly result in decreased survival within a population. Because of a shortage of food and because of cold temperatures, it is crucial for big game animals to conserve energy in winter months. UDWR recommends no construction, drilling, or completion activities from December 1 to April 15 within these areas.

BLM Response to Comment 12: All the parcels identified by UDWR in the Price Field Office that occur in crucial winter and fawning deer habitat have the stipulations UT-S-232 and UT-S-248 attached to restrict surface disturbing activities during these crucial time frames. However parcels 045, 047, 048, and 049 were not identified as containing crucial deer winter range according to UDWR's 2012 data therefore the stipulation UT-S-232 does not apply.

State of Utah Comment Elk 13: "Crucial elk winter habitat falls within sale ID parcels 001-004, 006-011, 013, 015-022, 030-032, 038, 040-043, 086, 087, 089, 090, 156, 169, 170-173, 217, 218, and 254. UDWR recommends no construction, drilling or completion activities from December 1 to April 15 within these areas. Crucial elk calving habitat falls within Sale ID parcels 001-004, 006-010, 012-018, 023-027, 030-032, 037-043, 050, 052-055, 086-092, and 109-117. UDWR recommends no construction, drilling or completion activities from May 1 to July 15 within these areas."

***BLM Response to Comment 13*:** *All the parcels identified by UDWR in the Price Field Office that occur in crucial winter and calving elk habitat have the stipulations UT-S-232 and UT-S-248 attached to restrict surface disturbing activities during these crucial time frames.*

State of Utah Comment Raptors 14: "Several species of raptors have documented occurrences within, or in close proximity to, the following Sale ID parcels: 010, 012, 015, 017-027, 029-032, 037-042, 045, 047, 049, 055, 056, 107-114, 119, 120, 121, 124, 127, 128, 130-132, 134, 135, 138, 139, 140, 143, 148, 149, 153, 158, 160-164, 169, 174, 176, 177, 179, 180, 195, 207-214, 216, 217, and 238-244. UDWR recommends raptor surveys if construction activity is planned during raptor courtship, nesting and/or fledging."

***BLM Response to Comment 14*:** *All the parcels identified by UDWR in the Price Field Office that occur in raptor habitat have the stipulation UT-S-260 attached to protect raptor nest that exist within the parcels.*

State of Utah Comment Prairie Dogs 15: "White-tailed prairie dog colonies are found on, or in close proximity to, the following sale ID parcels: 130, 131, 150, 119, 210, 243, 244, 142, 143, 144, 145, 147, 207, 208, 209, 238, 239, 240, 241, 242, and 164. UDWR recommends surveys for white-tailed prairie dog colonies be completed on these parcels, and if prairie dogs are found, a survey for burrowing owl and black-footed ferret also be completed within the preceding colonies. Sale ID parcels 043-049 also contain potential white-tailed prairie dog habitat, and UDWR recommends a survey for white-tailed prairie dog colonies on these parcels. If prairie

dogs are found, a survey for burrowing owls should be conducted within these prairie dog colonies. If prairie dog colonies are located, disturbance of burrows and surrounding potential habitat should be avoided where possible. If burrowing owls are located we recommend no construction, drilling, or completion activities within 0.5 mile of the occupied burrow from April 1 to July 15. Black-footed ferret surveys are not considered necessary within Sale ID parcels 043-049, even if prairie dogs are located."

BLM Response to Comment 15**:** *All the parcels identified by UDWR in the Price Field Office that occur within prairie dog habitat have lease notice UT-LN-49 attached which would require surveys prior to surface disturbing activities.*

State of Utah Comment Mexican Spotted Owl 16: "Sale ID parcels 039-042, 052-056, 086-088, 090, 091 are within a Mexican spotted owl predictive habitat model GIS layer. There are no current known sightings of Mexican spotted owls within these parcels; however, a UDWR biologist should be notified prior to construction activities within these parcels to inquire whether new observations of Mexican spotted owls have occurred within these parcels. If Mexican spotted owls are found to occur, the USFWS dates and spatial buffers for restricted activity should be applied as lease conditions."

BLM Response to Comment 16**:** *All the parcels identified by UDWR in the Price Field Office that occur within Mexican Spotted Owl habitat have stipulation T&E-06 attached which would require surveys prior to surface disturbing activities to mitigate impacts.*

State of Utah Comment Bighorn Sheep 17: "Sale ID parcels 055, 056, and 089 contains year-long crucial Rocky Mountain bighorn sheep habitat. To avoid potential negative impacts during the winter period, we recommend no construction, drilling or completion activities from December 1- April 15. To avoid impacting sheep during the lambing season, we recommend no construction, drilling, or completion activities from May 1 to June 15."

BLM Response to Comment 17**:** *All the parcels identified by UDWR in the Price Field Office that occur within crucial year-long Rocky Mountain Bighorn Sheep habitat have stipulation UT-S-253 attached which would restrict surface disturbing activities during seasonal use to mitigate impacts.*

State of Utah Comment Woodpecker 18: "Sale ID parcels 003 and 006 are within potential Lewis's woodpecker habitat. UDWR recommends avoiding any activity that will disturb aspen stands, particularly smaller stands of aspen near water that are considered important habitat for this species within this area."

BLM Response to Comment 18**:** *Parcels were pulled from lease sale.*

State of Utah Comment Bats 19: "Sale ID parcel 054 is near to known fringed myotis sites, which are considered a Utah state species of conservation priority according to the Wildlife Action Plan. Any open water sources that are created, such as evaporation ponds for oil and gas extraction, should have coverings placed over them to prevent bats and other wildlife from using contaminated water. Covering of evaporation ponds is a good general practice to avoid impacts to bats."

***BLM Response to Comment 19*:** *All the parcels identified by UDWR in the Price Field Office that occur within suitable habitat for bats have lease notice UT-LN-49 attached which would require surveys prior to surface disturbing activities and could require mitigation to lessen impacts to bats.*

State of Utah Comment Fish 20: "Sale ID parcels 002 and 003 are found within drainages which are likely to contain Colorado River cutthroat trout, although fish population surveys are incomplete. We recommend avoiding construction, drilling, or completion activities which could obstruct, deposit sediment, or otherwise contaminate or disturb water sources within these parcels. If such activities cannot be avoided, then we recommend not disturbing these water sources during the spawning period from April 15 to July 1. UDWR biologists should be contacted to identify the best alternatives to minimize impacts and avoid crucial areas.

Sale ID parcels 002, 003, 004, 006, 008 are within the lower Fish Creek drainage which is an extremely important area for sport fishing of brown trout, Yellowstone cutthroat trout, rainbow trout, and tiger trout. It is considered a premium fly-fishing area and has high value for anglers. Sale ID parcels 004 and 006 are partially within the UDWR's Lower Fish Creek Wildlife Management Area (WMA). The UDWR should be contacted prior to any work being done on these parcels, and where possible, the WMA should be avoided. All in-stream activity should be avoided and any potential permanent in-stream structures that create a fish-passage barrier should be avoided. Upland activities which might contaminate the stream through run-off are important to avoid. The most crucial time to avoid any activity that can potentially disturb water areas are the spawning periods for these fish species which are, April 1 - June 1 for rainbow trout, September 1 - November 15 for brown trout, and May 1 - July 15 for Yellowstone cutthroat trout. The number of roads and other permanent structures should be kept to a minimum. The visibility of such structures should be considered to protect the aesthetic value of the area, considered an important attribute of this premium fishing area.

Sale ID parcels 028 and 029 are found in close proximity to the lower Price River and its tributaries. The lower Price River contains bluehead suckers, flannelmouth suckers, and roundtail chub. The UDWR recommends avoiding any activities that will add sediment or otherwise contaminate the Price River or its tributaries, and avoid any in-stream activity or permanent in-stream structures that create a fish-passage barrier in the Price River or its

tributaries. Sale ID parcel 054 is found within the Range Creek drainage and has bluehead suckers and flannelmouth suckers. Sale ID parcels 089-092 are found within the Rock Creek drainage and water sources within these parcels may contain bluehead suckers."

BLM Response to Comment 20**:** *All parcels identified by UDWR as containing fish habitat have been pulled from the sale within the Price Field Office except for parcels 028, 029, and 054. These parcels have Lease Notice UT-LN-49 attached which would require modifications to surface use plans to mitigate impacts to fish populations.*

State of Utah Comment Pronghorn 21: Sale ID Parcels 029, 034-036, 043-049, 056 are found within crucial pronghorn fawning habitat; we recommend no construction, drilling, or completion activities from April 15 – June 15.

BLM Response to Comment 21**:** *All parcels identified by UDWR as containing crucial pronghorn fawning habitat have had lease notice UT-LN-17 attached to restrict development activities during this crucial timeframe.*

Trout Unlimited Comment 22: "We are commenting on this lease sale EA in order to draw attention to important fisheries resources in Range Creek - located in the vicinity of Lease Parcel UT1114-054 – and to request that this parcel be deferred from the November 2014 oil and gas lease sale."

BLM Response to Comment 22**:** *UDWR has proposed reintroducing Colorado River Cutthroat Trout into Range Creek in the near future. Therefore, in an effort to protect the potential occurrence of this species within the parcel, BLM has attached lease notice UT-LN-49 which may require modification to plans of development or further mitigation to protect this sensitive species. In addition, Stipulation UT-S-127 has been added to Parcel 054. This stipulation establishes buffer zones for no surface disturbance around riparian/wetland areas. "No new surface disturbance (excluding fence lines) will be allowed in areas within the 100-year floodplain or 100 meters (330 feet) on either side from the centerline, whichever is greater, along all perennial and intermittent streams, streams with perennial reaches, and riparian areas." The restrictions on surface disturbance provided pursuant to lease notice UT-LN-49 and lease stipulation UT-S-127 provide adequate protection to Colorado River Cutthroat Trout.*

WildEarth Guardians Comment 23: "There were … 34 parcels or portions of parcels removed due to sage-grouse conflicts…..this direction should be fully implemented with regard to all sage grouse habitat parcels; additional parcels identified by UDFW but not deferred by BLM from the November lease auction are identified below…..Parcels UT1114-10, 11, 20, 21, 30, 31,55…..are identified by 2012 Utah Division of Wildlife Resources data as overlapping with lands have presence of greater sage grouse, yet are not apparently slated for deferral…..these lands should all be deferred….All portions of these parcels falling within Preliminary General habitat should

be deferred as well….which provide the only legally sufficient EIS underpinning to allow leasing in the habitat of a Candidate Species."

Response Comment 23*: All parcels available for leasing were analyzed using IM-2012-43. Any parcels identified within Sage-grouse habitat were removed from consideration until the decision of the BLM Sage-grouse Management Plan is finalized.*

WildEarth Guardians Comment 24: "Newly published science indicates that noise standard need to be applied as lease stipulations in order to prevent significant impacts to sage grouse."

Response Comment 24*: All or portions of parcels that have Sage-grouse concerns have been pulled from this lease sale.*

WildEarth Guardians Comment 25: "We request that all parcels listed above be deferred from the lease sale pending analysis of whether large-block unleased parcels inside Core Areas are being leased, pursuant to IM 2012-043."

Response Comment 25*: All or portions of parcels that have Sage-grouse concerns have been pulled from this lease sale.*

WildEarth Guardians Comment 26: "Lease parcels should also be screened against Sage Grouse ACEC's proposed in the context of the statewide Sage Grouse Plan Amendments EIS process."

Response Comment 26*: BLM has removed all or portions of parcels located in Sage-grouse habitat pending final decision of the BLM Sage-grouse Management Plan.*

WildEarth Guardians Comment 27: "We are also concerned that BLM has not fulfilled its duties pursuant to NEPA to take a hard look at environmental impacts to sage grouse outside PPH. The sage grouse is a BLM Sensitive Species and Candidate Species under the Endangered Species Act, yet it is not listed in the Table 4.3 enumeration of species by the Vernal lease sale, and indeed is not mentioned at all in the affected Environment section of the document. There is a similar absence in the Price EA. Neither document examines (or even mentions) potential impacts to sage grouse. This is a NEPA 'hard look' deficiency."

Response Comment 27*: Every parcel nominated for lease is carefully analyzed using information collected by the BLM and the Utah Division of Wildlife's sensitive species data. Those parcels which are identified as containing sensitive species within the boundary are then required to have specific stipulations/notices attached to them to ensure that mitigation measures are in place to protect these species even prior to leasing. The act of leasing in a particular area does not ensure that impacts to sensitive species will occur. It's not until the lease is actually developed that potential impacts to these species could occur. Until an Application for Permit to Drill (APD) is submitted to the BLM office and a wildlife survey is conducted, the direct, indirect*

and cumulative impacts to sensitive species are unknown. Only when an APD is filed with the BLM can the impacts be identified and mitigation measures/best management practices (BMPs) be used to minimize or negate impacts to these sensitive species.

WildEarth Guardians Comment 28: "We ask BLM to implement at least a half-mile No Surface Occupancy stipulation for prairie dog colonies (or at least analyze this more protective buffer in the final EA). Further, this stipulation should be expanded to include historical habitat as well."

Response Comment 28*: The Price RMP established a stipulation for the controlled surface use and protection of white tail prairie dog colonies (UT-S-218) establishing a buffer of 660 feet. In addition a lease notice (UT-LN-49) was applied to parcels that have sensitive species to inform the operator that they may have to conduct white tail prairie dog surveys prior to any development on the lease. This will mitigate any impacts to the white tailed prairie dog colonies that may occur.*

WildEarth Guardians Comment 29: "We ask BLM to remove these parcels that overlap with white-tailed prairie dog habitat, or at the lease to place protective stipulations on all the parcels."

Response Comment 29*: All the parcels identified with white-tailed prairie dog habitat have had stipulation UT-S-218 added to control surface use in proximity to prairie dog colonies.*

Castle Valley Holdings, LLC Comment 30: "Castle Valley has complied with every procedural requirement for BLM's lease sale process in order to secure leases covering the Parcels….BLM's persistent and unreasonable delay in offering the Parcels for lease continues to significantly harm Castle Valley."

BLM Response to Comment 30**:** *BLM's decision to defer certain parcels is in accordance with Washington Office Instruction Memorandum 2010-117 Oil and Gas Leasing Reform, which specifies the following: During Interdisciplinary Review of the Lease Sale Parcels, when environmental information is being gathered and accessed "in some circumstances it may be necessary to defer parcels from leasing while additional resource information is collected and analyzed."*

Castle Valley Holdings, LLC Comment 31: "In 2013, BLM deferred the Parcels citing the need to conduct additional environmental resourced analysis……it has failed to conduct any analysis that BLM deems necessary to lease the Parcels, despite Castle Valley's repeated request that the Parcels' be included in BLM's lease sale……...The 2014 Lease Sale EA provided the exact opportunity to conduct this additional NEPA analysis, but BLM has not offered any explanation for why the Parcels were not and could not have been analyzed therein"

BLM Response to Comment 31**:** *BLM's decision to defer certain parcels is in accordance with Washington Office Instruction Memorandum 2010-117 Oil and Gas Leasing Reform, which specifies the following: During Interdisciplinary Review of the Lease Sale Parcels, when environmental information is being gathered and accessed "in some circumstances it may be necessary to defer parcels from leasing while additional resource information is collected and analyzed." Archaeological surveys are on-going within the subject 2013 parcels.*

Castle Valley Holdings, LLC Comment 32: "BLM deferred parcel UT1114-036 citing the need for further analysis of the potential impacts from leasing to nearby "essentially undeveloped" federal land and the "non-mineral resources" present therein. 2014 Lease Sale EA § 2.4. First it is entirely unclear what "non-mineral resources' are at risk……..This parcel is deemed "open" to oil and gas leasing subject only to BLM's "standard terms and condition lease form." Id. At Map R-25. "…..it strains common sense to defer UT1114-036 due to the need for further NEPA analysis in a NEPA document. This is the very purpose of an EA and BLM has not provided any rationale demonstrating that UT1114-036 should not have been fully analyzed in the 2014 Lease Sale EA, and ultimately included in the November 2014 Lease Sale…BLM's repeated deferral of these parcels and it failure to provide a rational basis for its decision to defer continues to economically harm Castle Valley…….BLM should act in accordance with the Price RMP and offer these parcels for lease."

BLM Response to Comment 32**:** *BLM's decision to defer certain parcels is in accordance with Washington Office Instruction Memorandum 2010-117 Oil and Gas Leasing Reform, which specifies the following: During Interdisciplinary Review of the Lease Sale Parcels, when environmental information is being gathered and accessed "in some circumstances it may be necessary to defer parcels from leasing while additional resource information is collected and analyzed."*

Western Energy Alliance Comment 33: " BLM originally received Expressions of Interest (EOIs) for 60 parcels, of which all or part of 17 were deferred due to conflicts with coal resources, and all or part of 34 were deferred due to BLM's determination of conflict with sage-grouse. The Proposed Action examines only 29 parcels covering 33,908 acres. Western Energy Alliance expresses serious concern regarding BLM's commonplace deferral of such a high proportion of nominated parcels. Our members continue to be harmed by these indeterminate delays and deferrals, and we believe that BLM is not adhering to the approved RMP per BLM Handbook H-1601-1, which establishes that existing land use plan decisions are authoritative until such time as an amendment or revision is finalized."

BLM Response to Comment 33: *BLM is currently in the final stages of completing the Sage-grouse EIS with RMP amendments included which will put in to effect new management criteria for sage-grouse. BLM does not intend on limiting the decision space of the sage-grouse EIS by leasing lands important to the survival of sage-grouse as required by 40 CFR 1506.1 (that no*

action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives). The issuance of leases and requirement of lease stipulation in priority habitat is a part of the programmatic Sage-grouse EIS proposal, so it is appropriate to defer leasing in priority habitat until the programmatic EIS is completed. In addition, the decision to defer from leasing lands within priority habitat for Sage-grouse while the BLM Utah Sage-grouse EIS is being prepared is consistent with the discretion provided for by BLM WO-IM-2012-043. The lands withdrawn due to conflicts with coal would potentially limit underground coal mining in active coal mines and reduce the amount of the total coal resource recovered. BLM is required under 43 CFR 3480.0-1 to maximize economic recovery of the coal resource.

US Fish & Wildlife Service Comment 34: We reviewed the parcels proposed for the November 14, 2014, oil and gas lease sale. … At this stage we reviewed the parcels primarily with the purpose of identifying substantial future significant and unavoidable impacts to listed species.

We also provide a list of parcels, identified in the spreadsheet as "Tier 2," for which we make some additional special note or comment. We did not review and identify all parcels which should have lease notices. We will engage on that process with you in the fall prior to the sale.

We hope that coordinating with you at this earlier stage in the process will allow you the ability to withdraw the parcels we have indicated. We look forward to working with you further on this, and are available for additional discussion on our recommendations.

	Special note or comment: Lack of comment does not indicate a lack of need for lease notifications for other species.
TIER 2	
7518-005	2 sub-parcels: Within GRSG "Opportunity Area" and potential PPMA.
7586-037	Within GRSG "Opportunity Area" and potential PPMA.

BLM Response to Comment 34: *Until the BLM Statewide Sage-grouse Management Plan is approved the BLM is under the guidance of IM-2012-043 which identifies sage-grouse habitat as being classified as either Preliminary Priority Habitat (PPH) or Preliminary General Habitat (PGH). All those parcels identified within PPH and PGH have been pulled from the lease. Any other classification of habitat not identified within IM-2014-043 is not being considered for removal at this time.*

Attachment 1

2014 Oil & Gas Leasing EA Air Quality Comment Response

Response to Southern Utah Wilderness Alliance (SUWA) Air Quality Comments

Leonard Herr - BLM Utah Air Resource Specialist

SUWA in their comment letters regarding the Environmental Assessments (EA) for quarterly lease sales in both the Price and Vernal field offices state that both EA's are inadequate and should conduct quantitative analyses, including dispersion modeling, for air quality impacts on a host of issues, including: ozone, nitrogen dioxide, particulate matter, visibility, hazardous air pollutants, Prevention of Significant Deterioration, and greenhouse gas emissions on climate change. The BLM does not conduct quantitative analysis, and specifically dispersion modeling, when the activities under review cannot be adequately characterized as to emissions, sources, location, and/or duration. Leasing actions by their nature do not involve emission increases. Once specific development plans are proposed adequate air quality analysis can and will be conducted to determine impacts and appropriate mitigation if needed. This is consistent with interagency guidance in place, recent IBLA decisions, and recent court decisions. Examples of this guidance and decisions that specifically address BLM oil and gas leasing include:

MEMORANDUM OF UNDERSTANDING AMONG THE U.S.DEPARTMENT OF AGRICULTURE, U.S. DEPARTMENT OF INTERIOR, AND U.S. ENVIRONMENTAL PROTECTION AGENCY, REGARDING AIR QUALITY ANALYSIS AND MITIGATION FOR FEDERAL OIL AND GAS DECISIONS THROUGH THE NATIONAL ENVIRONMENTAL POLICY ACT PROCESS

V.D.1. If the Lead Agency cannot complete necessary quantitative analysis (e.g. if a reasonably foreseeable number of wells cannot be determined, see V.E.1), it will include in the appropriate NEPA documents:

- A qualitative narrative description of the air quality issues or impacts;
- A statement of when more detailed information will likely be available; and,
- A commitment to complete the air quality and AQRVs analysis once the requisite information is available.

AMIGOS BRAVOS, v. UNITED STATES BUREAU OF LAND MANAGEMENT

The court ruled in BLM's favor on plaintiffs' claim alleging that BLM violated NEPA by failing to prepare EISs before approving the quarterly oil and gas lease sales. The court found that the BLM's analysis of the lease sales in EAs was sufficient because a detailed analysis of ozone impacts prior to development plans would constitute a misallocation of resources given that lease development is uncertain. The court held that BLM's decision to defer additional analysis until receiving an APD was not arbitrary and capricious.

NEPA does not unduly burden agencies with analyzing environmental impacts that are not concrete enough to warrant an inquiry. Richardson, 565 F.3d at 717

SOUTHERN UTAH WILDERNESS ALLIANCE, 2011 - 133 IBLA at 15

While SUWA disagrees with BLM's judgment that specific source and emission data are needed in order for quantitative modeling to be effective, it has not provided the Board with objective proof that the reasoning that BLM must work from a specific development plan prior to conducting quantitative modeling contains a material error in the data, methodology, analysis, or conclusions of BLM's experts. Accordingly, we hold that BLM did not err in issuing the leases in question prior to conducting a full environmental analysis of impacts on ozone formation in the Uinta Basin.

SOUTHERN UTAH WILDERNESS ALLIANCE, 2011 - 133 IBLA at 17

Lastly, we address SUWA's argument that climate change requires BLM to prepare a supplemental EIS prior to issuing the six leases. We find that BLM's environmental analysis, declining to posit precise correlation between specific climatological changes or the environmental impacts thereof attributable to projected greenhouse gas emissions from the particular project, does not fall short of NEPA's "hard look" requirement for promoting informed decision making, where evidence in the record as to the state of the science confirms the speculative nature of such impacts. *Powder River Basin Resource Council,* 180 IBLA at 134. As in *Powder River Basin,* in this case SUWA did not support its claim that BLM failed in its duty under NEPA to extend its analysis in order to disclose and analyze the world-wide and local consequences resulting from the contribution of emissions from potential development on six oil and gas leases on global climate change.

Consistent with the guidance found in the interagency MOU on oil and gas decisions related to NEPA, the BLM qualitatively described air quality issues in their respective field offices (Vernal FO November 2014 Lease Sale EA Section 3.1.1, Price FO Lease Sale EA Section 3.3.1), and also explained when data would be available and that appropriate analysis, including dispersion modeling, will be conducted when specific projects are proposed (Vernal FO November 2014 Lease Sale EA Section 4.1.1.1, Price FO Lease Sale EA Section 4.3.1.1).

In addition, it should be noted that BLM is currently conducting extensive landscape scale modeling in the Uinta Basin to develop management strategies for oil and gas development based on a level of analysis that will be more detailed and comprehensive than anything previously attempted. In concert with this modeling study BLM is working with Utah-based academic institutions to develop and support regional modeling capabilities specifically addressing energy planning and development. BLM is also participating, funding, and conducting scientific studies to better understand winter ozone formation in the Uinta Basin, and will use the results of these studies in guiding and informing analysis of any specific projects that may be authorized under these lease sales. BLM is not ignoring analysis, simply conducting it at

the proper time and with the proper information to provide decision-makers with the best possible scientific analysis.

Appendix F – Parcel Pictures, Parts 1 – 2